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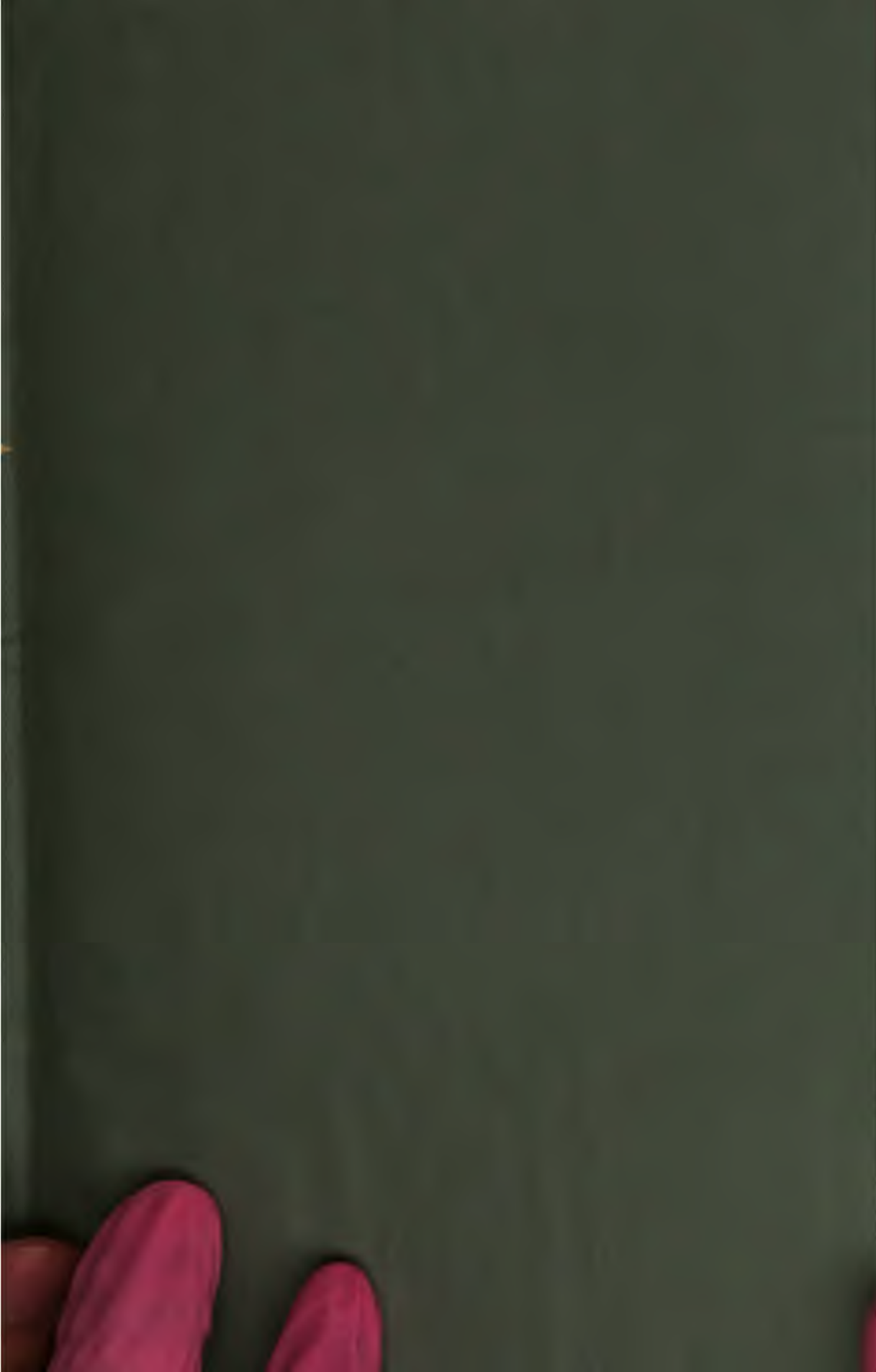


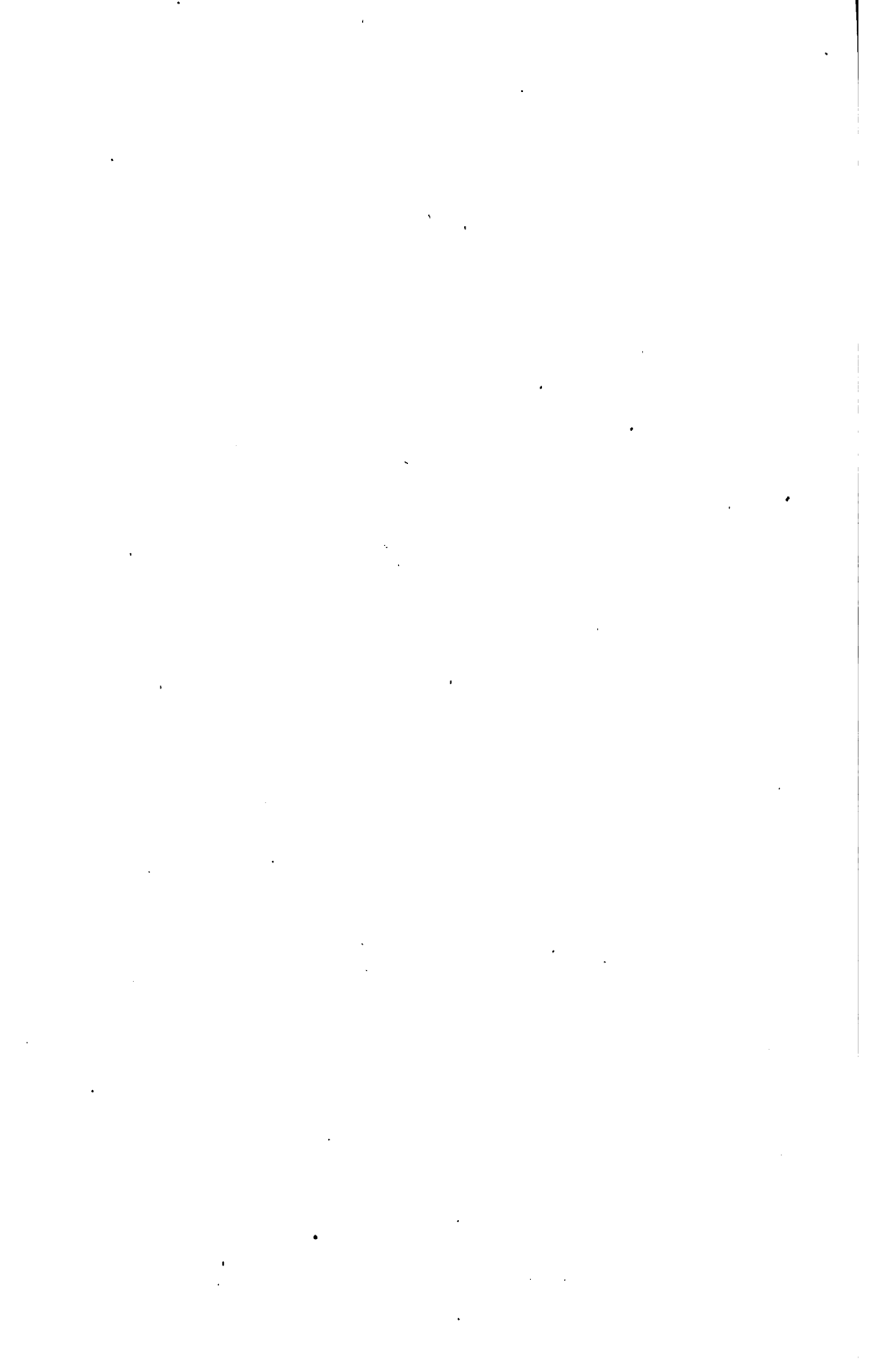
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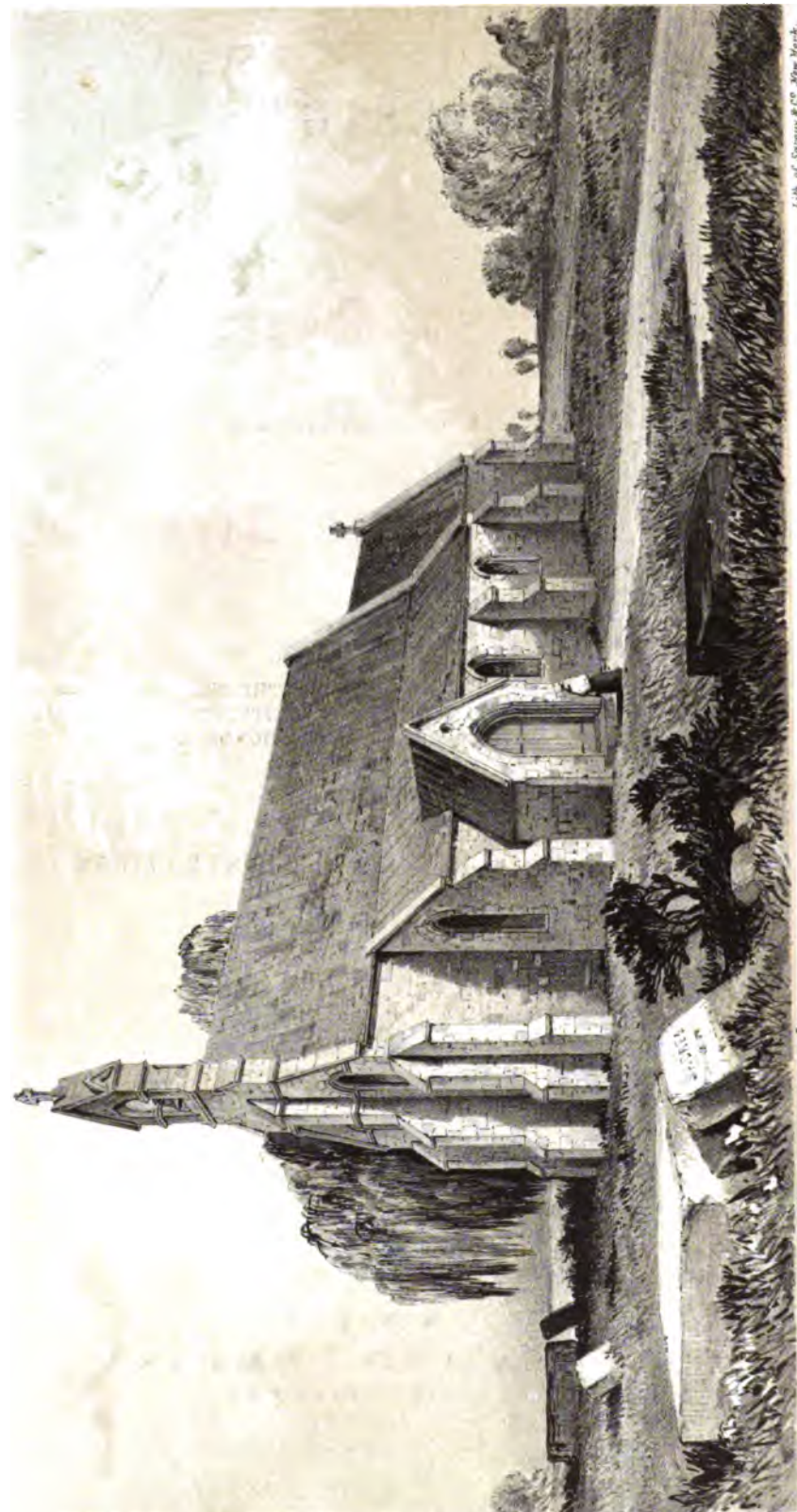
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Perspective View
from the South West

DESIGNS

FOR

Parish Churches,

IN THE THREE STYLES OF

English Church Architecture;

WITH AN

ANALYSIS OF EACH STYLE; A REVIEW OF THE NOMENCLATURE OF THE
PERIODS OF ENGLISH GOTHIC ARCHITECTURE, AND SOME
REMARKS INTRODUCTORY TO CHURCH BUILDING,

EXEMPLIFIED IN A SERIES OF

OVER ONE HUNDRED ILLUSTRATIONS.

BY

J. COLEMAN HART, ARCHITECT

"Taste and art, rejecting heathen mould,
Shall draw their types from Europe's middle night,
Well pleased if such good darkness be their light."

New-York:

DANA AND COMPANY,

No. 381 BROADWAY.

1857.

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Prof. A. P. PEABODY (82)

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By J. COLEMAN HART,

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Preface.



ANY valuable works have been published in England on its Medieval Architecture, from which students who have not facilities for visiting its shores, adorned with all that is beautiful and instructive in Gothic Architecture, have been enabled to form some idea of what it really is.

Books have been printed for their assistance, exhibiting the chronologically arranged periods and analyses of the styles into which Gothic Architecture has been divided, and elucidating the architectural peculiarities incident to these several periods, which differ so much as to allow of distinct classifications—consequently making the study of Gothic Architecture as clear and comprehensive as that of the Grecian or Roman.

In this labor—it might be said of love—English writers particularly have been very successful and greatly appreciated; and various Archæological and Ecclesiological societies, actuated by zealous motives, justly priding themselves upon the architectural beauties among which they live, knowing their great value as studies, and desiring the student to become thoroughly conversant with them as such, with a view to the improvement of modern Church Architecture, have

delineated and published from time to time various works on Medieval Church Architecture of inestimable value, which we cannot too highly eulogize. Thus the student who cannot enjoy practical studies of Old English examples as they exist, becomes every day more and more indebted to the authors of these valuable and important works.

Owing to the difficulties of research, the time required and the labor attending the delineation of the illustrations of these works, and the great expense necessary to their production in this country, their issue is mostly confined to the larger cities; and the rural student does not therefore receive his quota of the benefits that were graciously intended for him.

The nice discrimination required in studying in this manner the Architecture of Medieval buildings, as very few of them are free from a mixture of all the styles of Gothic Architecture, renders the use of any one of these styles—necessary to be taken from many studies to perfect a pure design—seriously difficult.

Anomalies which are constantly seen in rural parishes are the unmistakable consequences; and “however correct” the student’s “taste, or keen his perception of real beauty, he could not enter into the details, or understand *why* this was curious and that peculiarly instructive as a specimen of its kind. All would be a blank, from inability to divide and particularize. He would regard it only as a whole.”*

The vital principle of the study of Gothic Architecture, as divided into the three great periods, namely, the Early English, the Decorated English, and the Perpendicular Eng-

lish, is the embodying either one of them in a complete design unadulterated and free from admixture with the preceding or succeeding period.

No author that I am aware of, in this country, has as yet issued a publication based on this principle. The want, with all the beautiful material at hand, should be relieved. It is hoped that the student may find some hints of value to him in this volume, which is a simple effort to supply a deficiency in the area of Architectural publications.

In too many instances the erection of the parish church is directly undertaken by the priest of the parish, or by a parishioner, aware of his incapacity in matters of church architecture, (when presumption has not the better part,) but forced by circumstances, in his view of the case, to undertake a commission of such vital importance to the spread of Christianity and to Architecture as an art.

Far away from architects of ability, and knowing the incompetency of those around him, he seems to the uninitiated, to be driven to this hopeless alternative; and what he produces is often misconceived and exceptionable in many particulars. As if to make architectural *amende*, the quasi architect—and the class is daily increasing in number under the present rule of things—shields himself behind apologies *ad libitum*, devised with more of skill and truth to nature, than are displayed in his works, which prove to be but the cenotaph of his absurdities, that know no transition save to a horrible life everlasting.

Position and recognized ability in other than the architect's vocation often favor the easy promulgation of these misconceptions and mal-inventions; and thus, old in ignorance, with

the air of "knowledge in all things," are foisted upon the unwary a class of pretenders who degrade rather than encourage the study of Architecture in its legitimate sphere.

It is not an uncommon proceeding for parishioners to apply to better skilled artists, at a distance, for their design, when the erection of a church is projected, and console themselves with the false idea that they have all that is required for so holy an undertaking when inspecting the voluminous rolls of designs transmitted to them.

It is just as important at this period that the erection of the church proposed from such design should be under the eye of the architect, as that the design should, in the first instance, be good in itself; for if the recipient is competent to carry out the architect's design, he underrates his abilities when commissioning an architect at a distance to prepare the design for him.

"The old builders possessed nothing but the sound intelligence of sensible men, and an aptness in practice exercised from earliest youth. They lived more at the building place than at home; thought of little else and did little else; and thus they evidently succeeded much better than our well-grounded sages, who often bring into the world their left-handed productions, or tamely written pamphlets, and would fain superintend the erection of buildings from their writing-desk."*

But how must this erroneous and too common practice be obviated, and the proper attention given to the encouragement of *bona fide* architects, that there may be more fitness and rubrical propriety in the erection of our parish churches?

* Whewell's "Notes."

An answer to this inquiry it is humbly presumed may be found, to a slight extent, in the volume now presented to the public; and should it tend in the smallest degree to the advancement of a proper understanding of Church Architecture and correct professional practice, the author will have discharged, however imperfectly, some small portion of his duty, feeling that his humble efforts should be given to the diffusing of a correct knowledge of this high and most noble study of all art, Church Architecture.

“Would it were worthier.”

J. COLEMAN HART, ARCHITECT.

167 *Broadway, New York.*



Introduction.

"We may not be able to command good or beautiful, or inventive architecture; but we *can* command an honest architecture: the meagerness of poverty may be pardoned, the sternness of utility respected," ° ° °



S it is intended that this work should be as useful as the material at command will make it, and not be confounded with archæological dissertations and theories that are of interest only in their proper spheres, it would not become the object in view to endeavor to trace or theorize upon the origin of the Architecture which is now under consideration; a cursory glance will be all that is necessary.

Much has already been said upon this very interesting subject. Great minds, versed in archæology, have grappled with it and left no stone unturned, no twig its bent, no form its rest; until the intersection of round mural arches, the grove of the forest-trees with their knotty trunks and interlacing branches, and the constructive necessity for elevating the round arch to the pointed, have all been assumed as the suggestive origin of that Architecture—need I say the Gothic?—which has filled the world with admiration and wonder.

° "Upon no subject of antiquity have so many discordant opinions been maintained, as upon the origin of what is called Gothick Architecture. ° ° ° °

"It is a fact concerning which controversy is no longer entertained, that the aboriginal

It is of as little consequence to the architect in his practice to know who invented the pointed arch, as it is for him to know in which country Gothic Architecture first existed. At all events, in a historical point of view, with many valuable writings before him as instructive lessons, he will not need to conjecture much or travel far, in order to find antecedents or parallels to all his own fanciful theories perchance already in existence.

If the southern part of Europe may be considered the birth-place of the pointed arch, certainly the soil was not very congenial to its development, and its beautiful fruits and ramifications did not arrive at maturity until its transplanting was accomplished many years afterwards.

The late Thomas Hope, in his *Historical Essay on Architecture*, says, "Were I disposed to found a new theory on a mere superficial resemblance, I might trace the last and most luxuriant efflorescence of the Gothic style, not to the barbarians of the North, but to the most anciently civilized nations of the South,—indeed of the terraqueous globe—to that nation to which we naturally look for every art and science of

Goths had no share either in the invention or perfection of that peculiar style of Architecture which bears their name. ° ° ° By the Goths, no individual nation is alluded to, but the Northern conquerors in general, before they were incorporated with the people they had subdued. Gothick, therefore, should be considered merely as a term to convey reproach to every thing in literature and arts, which was not strictly accordant with the antique model, adopted and applied by those who had introduced the restored Grecian."—*Dallaway's Discourses upon Architecture in England*.

"In popular phraseology, we use the word Gothic to designate a class of unclassical architecture; and the term may not be objectionable as applied to the buildings of Sir Christopher Wren, and some later architects. Their structures have no order, nor yet system, or symmetry of style; but the *Christian Architecture* of the middle ages, from the Norman conquest to the dissolution of monasteries, is marked at every separate era by an unity, harmony, and distinctive concordance of parts."—*Britton's Account of the Church of St. Luke, Chelsea*.—*Illustrations of the Public Buildings of London*.

which we cannot discern a later and nearer origin—to the Hindoos.”

So beautiful a feature in construction as the pointed arch, with its acknowledged ascendancy over all other forms of its kind, in its easy adaptations without detriment to all situations and requirements, and its fitness to express by symbolism ritual ideas and devout aspirations, could not long remain dormant. The seed of all Gothic art was not destined to remain undeveloped. Germination proceeded and, as it were, its pollen was quickly wafted by propitious winds to remote countries north and west. It mingled with the peculiar architecture of those countries, continued but a brief while in transition, and from its nature, as the beautiful and useful will always predominate, it soon reared itself upon the ruins of the worn-out Roman or Lombard round arch.

The unyielding form of the latter, either in its adaptation to the now elevated vault, with its ponderous ribs, or to the elongated window, with its massive voussoir, fell into disuse, and was soon cast aside for the more delicate and aspiring contour of the former (or pointed) with its web-like rib mouldings and neatly managed intersections. What glories in art were ushered into existence by the presence of this single precious germ !

Germany, France and England, the lands of its adoption, all afforded congenial soil for the reproduction of its seed. All alike claim it as indigenous to themselves, as having priority of existence in their own precincts, and each boasts of its superior monuments of cathedrals, abbeys and churches

that now live to show us the diversified and far-spread fruit of a single *principle*.

Difference of origin, mode of life, tastes and climates naturally had a marked effect upon the advancing growth of their fostered, pointed architecture, and therefore to these causes should we trace the dissimilarity now existing in the Gothic Architecture of these three countries.

"I have already mentioned a German author," says Mr. Hope, in his Historical Essay on Architecture, "the Chevalier Wiebeking of Munich, who, in support of the claims of his countrymen to the introduction of this description of forms, which he attributes to St. Bernward, Bishop of Hildesheim, ascribes the foundation of many of the principal pointed churches of Germany to eras so much earlier than any we can quote elsewhere, that, supposing these to be genuine, the priority, the invention, of the pointed style in Germany is proved, and we have nothing further to say on that score."

In Germany, then, let us lay the foundation of all Gothic art—look to her as the mother of it. Her claims to such maternity surely have been ably and truthfully enough advocated. Then trace its migration to nursing France, in whose lap it grew strong and healthy and whimsical, where it made gigantic strides, aided by the mighty boldness and native ingenuity of its Gallic foster-fathers. And follow its march, until it reached England, whose most favorable clime, prepared for its final settlement, gave it that surprising impetus in its progress to manhood and maturity which mark it, it would seem, as almost native there.

Those peculiarities that were born in Germany and fructi-

fied in France, were gradually lost—and well they were—by its associations in England.

The different manners and customs of the Britons, operating now with increased vivacity, infused another life into it, and Gothic Architecture lived and does now live in its mouldering ruins as the peculiar architecture of the English people—as the characteristic work of their forefathers—as the consequence of the religious zeal of its architects, the product of centuries. What noble results!

As the peculiar habits and religious faith of the old English people, did mature a characteristic mode of building, a national Ecclesiastical Architecture for their religious requirements, and many examples still exist as monuments of their faith; so do I conclude and believe *that the Church Architecture of England, can have no true existence under a system foreign to her own.*

Orientation.

In America a valuable result of our nascent endeavors and of our opposition to Paganism in art is, that the importance of Church Architecture has grown to be more acknowledged and appreciated. Its extraordinary progress among us attests the working of some great cause, that has aroused us from our lethargy, and is disseminating the truths of this noble art from day to day in the breasts of those who are humbly prepared to receive them.

But Church Architecture—what is it?

Is it the beautiful traceried window, or the pinnacled

buttress, or the tall tower with its tapering spire that makes it?

No—it is the reverent hand, the religious feeling, symbolical observances, which have created it, have built windows in honor of God's light, pinnacles that carry the eye of man unconsciously heavenward, and spires that are made

“——— to raise the heart and lead the will,
By a bright ladder to the world above.”

We build to the honor of God. Our work has its foundation in holiness. And as we lay that which is to receive the superstructure, it will yield results in harmony with our sentiments; if we build reverentially, we must also build symbolically; therefore we do but follow in the footsteps of those who built so often in times long passed for the honor of God.*

As we look to them for our lessons in Church Architecture, and they are our best teachers, we must not omit to study and to build with the same feeling—the same devout and symbolical feeling—or we will never accomplish any good result, and our churches will stand as but “labored quarries above ground,” meaningless and irreverential piles.

“A Gothic church, in its perfection, is an exposition of the distinctive doctrines of Christianity, clothed upon with a material form; and is, as Coleridge has more forcibly expressed it, ‘the petrification of our religion;’ or, as it has been expressed by a mind essentially differing from Coleridge’s, which

* “For other foundation can no man lay than that is laid, which is Jesus Christ. Now if any man build upon this foundation, gold, silver, precious stones, wood, hay, stubble; every man's work shall be made manifest: for the day shall declare it, because it shall be revealed by fire; and the fire shall try every man's work, of what sort it is.”—*1st Corinthians*, iii. 12, 18.

makes the coincidence the more remarkable. The divine order and economy of the one seems to be emblematically set forth by the just, plain, and majestic architecture of the other; and as the one consists of a great variety of parts united in the same regular design, according to the truest art and most exact proportion, so the other contains a decent subordination of members, various sacred institutions, sublime doctrines, and solid precepts of morality, digested into the same design and with an admirable concurrence tending to one view—the happiness and exaltation of human nature.”*

Orientation was strictly observed in the erection of the Medieval Churches, with but few exceptions, and those are to be traced to remoter causes than a want of symbolical understanding or rubrical obedience. The verge of a precipice, or the undulating line of a river's margin, or some other natural or local difficulty, was a plausible reason for a deviation; or ignorance of the precise cardinal points may have caused the slight inclination from the East observable in some counties. And I have yet to find the antiquary that would attribute these variations to an intended violation of rubric, or sentiment, or usage.

It is not so, I am pained to say, in the churches of the present time, and we do violate this venerable observance, which was one of the component principles in the development of the architecture we employ, with that same careless temerity with which churchmen omit the chancel, or substitute a table for the altar, which often loses its distinctive character, and from its unchurchlike position, has sometimes been desecrated and turned into a convenient cloak and hat stand. What irreverence!

* Poole's Churches.

Sameness of design, and the want of picturesqueness—the very life of all Gothic work—characterize most modern structures. The everlasting corner steeple, repeated wherever the eye chances to fall, multiplied in almost endless number for either of the four corners made by crossing streets, may be attributed, without injustice, to the authority of those who build more for mere architectural display than with a spirit of religious devotion.

This degeneracy, so often observable in the first movement towards the erection of a church, should not be tolerated if we profess to build religiously, nor should we proceed further in the work, as that which is begun in irreverence cannot expect to meet with respect either from the heathen or the Christian. But

“Unto the East we turn, to which belong
More than the heart divines or eye describes.”

Keeping in view then, the same symbolical reason and also the same religious devotion with which the corner-stone of the Sanctuary was laid Easternmost, the next step in our progress will be to the development Westward of the

Plan.

Our countrymen have already made progress in architecture. There is intelligence enough to comprehend its mysteries, and sufficient taste to embody them in our edifices. The latent capacity needs only to be developed by instruction in its true principles, in order to restore the art to its noble position.

It would be an error to urge the introduction of Gothic Church Architecture upon any other basis, than that of its

symbolical meaning. True, little is as yet known of the symbolisms used every day in the very churches we build; yet it does not follow that such symbolisms do not actually exist. The practice of adapting the Middle Age buildings to the present conventional forms of worship is prevalent among us: and these buildings require but little if any alteration to accomplish this object. Yet they contain in themselves original symbolic forms and devices. The edifices and the symbols are inseparable. The minutest, and so on to the grandest parts of their architecture, to those who have within them a religious feeling, are fitting emblems of the religion that created them. And if their architecture is appropriated to the use of modern worshippers, so do they unconsciously introduce its mysteries when they build their churches.

“Gothic Architecture has always the charm of mystery; it does not exhibit itself naked and bare, like a Greek temple perched on a rock; but it appeals to the imagination, veiling itself with walls, and screens and towers; it delights in bold, striking, and picturesque irregularities, and always appears larger than its actual dimensions: the mouldings, the pillars, the arches, always create receding shadows, and to the eye, the idea of *space* arises from the succession of ideas.”*

Though the unique little church of Shottesbroke, (England) should be made the model for a new church in its vicinity or elsewhere, its cruciform plan and trinal arrangement, adopted by the pious founders, as typical of Christ crucified and the Holy Trinity, would still remain symbolical, though a building committee may have adopted the model without a spirit

* Bardwell's "Temples."

of reverence, or in utter disregard of all its typical signification.

That church-building in this spirit is practised to a great extent, is not a matter of doubt, and the corollary is then that we do sometimes symbolize the Godhead, and sometimes the Crucifixion in the erection of our houses of worship, without knowing what we have done!

These common, every-day transactions are gross, though unwitting plagiarisms. Churches should be erected in honor of God, and the agents of the work be inspired with a sentiment of truth.

We might be guilty of a like larceny, in our ignorance, by appropriating the labors of Milton in the *Paradise Lost*, without ever having read more than his chapters of arguments, but simply for the reason that its *plan* came nearest to our own ideal of the groundwork of such an allegory.

It does not necessarily follow, because the cruciform plan, from various circumstances, cannot always be adopted, that none others are as symbolical. Gothic art was created upon "Theological, Ecclesiastical and Mystical" principles; and whatsoever plan be adopted, whether it is that which embodies the nave, chancel and sanctuary, or all of these with the addition of aisles, or this combination with the addition of transepts; the ever-present symbol of the Holy Trinity will be found in them all; that is "the nave, being the commencement of the church, would in the language of the designer be read the Father, and being the first part, is of none. The chancel or cross (and which is as it were made to arise out of the nave) is of the nave alone, [as the Son from the Father:] and the holy of holies is of the nave and

of the chancel, proceeding from them." [as the Spirit from the Father and Son.]

When contemplating the building of a church, if at liberty to choose from either of the plans above named, there are many reasons why the cruciform should be uppermost in the mind.

First; "According to human reason, the cross form should be the foundation for a house of prayer, because the religion of Christ crucified is to be preached within its walls; and in conformity with this principle, a vast number of our churches have been so constructed, and wisely so too, for the essence of a subject should be its foundation and Christ crucified is the essence of our religion."

Second; the nave of a parish church should not exceed thirty feet in width, nor three squares of its width, or ninety feet, in length. I do not now of course refer to those in modern times which are cathedral imitations.

Then it is readily seen that when a greater number of parishioners are to be seated, not to overreach or mar what has been made pleasing and in good proportion and the most economical, more room must be had, and hence the addition of aisle or aisles,* and the attendant beautiful nave piers and their lofty arches; and hence, also, if the nave be of a sufficient width, the pierced clear-story becomes a necessary and effective adjunct. Next, then, another alteration, for as good a reason, should be determined upon, and with as little loss as at first; that is, transepts may be added, with or with-

* Though the need of more space for worshippers has been considered the origin of both aisles and transepts in parish churches yet, there is other authority for accounting the ancient basilica to be the type of the Gothic cathedral.

out aisles, to accommodate the now increased number of parishioners.

It will be seen that all of these alterations and additions have served to bring the constantly growing number of worshippers near to the pulpit and the chancel, which would not have been the case had additional accommodations for them been obtained by a greater length of the nave.

For the sake of economy and beauty, thirty feet in the width of a nave should not be exceeded, and ninety feet in length should not be exceeded, for the reasons that it would place the sittings too far from the chancel and mar the good proportion of the interior. Therefore, following the scheme of additions as above, the cruciform plan is preferable for a large congregation, to say nothing of its clear typical meaning and architectural beauty. See "Design 4, Plate 2."

When it is consistent with the means at command, in a small church, the cruciform should take precedence of all other designs, for the reasons already specified in favor of it where a larger church is to be erected. See "Design 5, Plate 2."

The rood-tower is an important and peculiar feature in the plan and perspective of a cruciform design, and seems to have grown out of it, as a necessary appendage, though there are many old churches that have the rood-tower without the transverse arms of the cross.

The plan including nave, transept and rood-tower was the most prevalent with the earliest Gothic architects, though there are instances in the same period in which the transepts and towers are subsequent erections, or additions to the original edifice.

Agreeably to this plan a greater elevation of steeple can be obtained with less difficulty and less expense, and certainly with as much claim to architectural beauty as in any other, since the exterior base of the tower, or its intersection with the roofs, is, at its commencement, already elevated above the surrounding building, and, with attention to good proportion—although confined to the width of the nave, as should always be the case—it will admit, as seen in perspective, a great elevation; but it demands a corresponding lightness.

In Design 4 (Decorated) the clear-stories to the transepts have been omitted, as not being, in this design, actually essential to its architecture or usefulness. And this omission allows the first section of the tower to be appropriated as a lantern and ventilator to the central portion of the church. At the same time the second section serves as a belfry, as usual.

In order to reduce in thickness, as much as possible, the main piers of support to the tower, it became necessary to omit the usual stone stair-case winding up in one of the piers to the belfry. The latter being used only as a belfry, and a visit to it being seldom required, it will need but little ingenuity to reach it in case of necessity.

The adoption of a rood-tower with its spire has been often objected to, even where it has been feasible and greatly to be desired; for its piers and arches, which are generally required to be made massive and heavy, obstruct the sight and produce too great a reverberation of sound. These would be serious difficulties, in attempting to imitate the design of an ancient church, because of the custom prevalent of old of constructing the tower of smaller dimensions than the nave,

and thereby bringing the piers necessary to the support of the tower several feet within the body of the church, at the same time diminishing the arch or opening between the piers.

In "Design 5, Plate 2," the tower is of the same width as the nave, and its walls receive support vertically upon segmental arches, thrown across the nave, chancel and transepts; these again receive a lateral resistance in their respective walls, which stand as buttresses and afford us the strongest possible construction. In this manner, it will be observed, all impediments to the sight are removed, without the necessity of spoiling tower piers by curtailment or mutilation.

In "Design 4, Plate 2," the piers are made comparatively small, and receive, for this diminution of support to the tower above, additional and greater strength in the adjoining arches of the aisles, carrying the lateral pressure also to the external walls, as in the "Design 5, Plate 2," described in the preceding paragraph. In this manner, slender and graceful piers, (in all cases built upon strong and proper foundations) may be made to answer the purpose of support equally as well, as massive and cumbrous piers without this additional lateral resistance.

Material.

It would be a difficult matter here, within the limits to which this work is necessarily restricted, to particularize the various kinds and qualities of building materials that are necessary to the erection of a church, and to treat upon their relative merits.

Wood, brick and stone all have good properties, though it is always advisable, in districts where stone can be procured,

to employ it in preference to any other material. Its durability, which depends much on its species, is not of less importance than its superiority over all other materials in picturesque appearance and architectural beauty.

If the vicinity in which it is proposed to erect the church produces lime stone—its component parts being carbonate of lime, or the carbonates of lime and magnesia, nearly pure, and sometimes mixed with extraneous matter in various degrees—care should be taken to select that which is the most crystalline in its composition, as it is the most durable, and least to be affected by atmospheric changes.

Or, if sand stone abound—its component parts being quartz or silicious grains cemented by silicious, argillaceous, calcareous or other matter—its durability will depend upon the nature of the cementing substances, as its grains themselves are almost imperishable.

Laminæ are peculiar to sand stone, and, in its natural bed, their position is horizontal. If such stone be used with its laminæ placed in a perpendicular position when built in the wall, it will decompose in flakes, according to the depth of the laminæ; but if placed in the wall, in its natural or horizontal position, the decomposition will be comparatively small.

Variety of color and irregularity of strata, in all stones, are to be preferred, and should not be put aside for what some consider “handsome”—for smoothness, sameness in tint and want of a show of texture.

In selecting stone for building purposes, greater attention should be given to its durability, and not so much to other considerations that are ever uppermost in a parsimonious

mind. I think it will not be amiss to apply an English writer's remarks to our own country, seeing the daily and increasing carelessness shown in regard to the matters and usages here briefly treated.

He says, "In modern Europe, and particularly in Great Britain, there is scarcely a public building, of recent date, which will be in existence a thousand years hence. Many of the most splendid works of modern architecture are hastening to decay in what may be justly called the infancy of their existence, if compared with the date of public buildings that remain in Italy, in Greece, in Egypt and the East."

As to the manner of working and laying the stone in the wall, I cannot do better, in expressing my own ideas upon this equally important subject, than to extract the following paragraphs of a foot note from the description of Trumpington Church in the "Churches of Cambridgeshire."

"No one can have failed to observe how seldom the ancient Gothic architects used either large stones or fine joints in their masonry. To find this peculiarity at a time when no cost was spared, and when the extreme delicacy of workmanship in minor details was unsurpassed by that of any other age, is to convince us that it was not destitute of a sound practical reason. Modern builders boast of their superior skill and greater neatness of workmanship in these two respects. Compare for example the new buildings of King's, S. John's and Downing Colleges, with any ancient building, collegiate or ecclesiastical, and we shall see the most striking difference in the respective styles of masonry. The modern buildings are constructed of very large squared stones, with joints of almost imperceptible fineness; the ancient, of ham-

mer dressed ashlar, with mortar a quarter of an inch thick between every joint. Downing College has now scarcely five square yards of masonry entire; everywhere the huge stones are rent and disjointed by the settlement of the foundations. In the new buildings of St. John's, by far the greater part of the monolith window-sills are split in two, and in several places the stones have started or been shattered from the same cause."

"The ancient masonry seems to have been designed to take into account those trifling settlements which are almost unavoidable, and which for the most part take place shortly after the erection of a building, often before the mortar has become hard.

It is remarkable that the Tower of Trumpington has suffered much internally by the disruption of the *fine-jointed* stones from settlements. The attention of architects should be directed to this subject; because if we mistake not, the ancient had three important advantages over the modern masonry, viz. (1) a much better appearance; (2) greater cohesiveness; (3) it cost one third less. We are aware that some *late* Gothic buildings, as King's College chapel, violated (and with impunity) the more ancient principle; and on the other hand, that many edifices built on the old system have suffered from settlements. We speak of course, only of general practice."

Entrance.

In what has thus far been written, there may be objections raised by the reader to the introduction of matter, that in juxtaposition with the conventionalities of the present time

may be thought too controversial for an instructive work, as this purports to be. All I can offer in extenuation is that it was the intention, from the commencement, to find fault with and condemn all those things in the architecture* and building of our parish churches that were most glaringly defective, and afterwards to endeavor to make the corrections most in

* "ARCHITECTURE is the art which so disposes and adorns the edifices raised by man for whatsoever uses, that the sight of them contribute to his mental health, power, and pleasure.

It is very necessary, in the outset of all inquiry, to distinguish carefully between Architecture and Building.

To build, literally to confirm, is by common understanding to put together and adjust the several pieces of any edifice or receptacle of a considerable size. Thus we have church building, house building, ship building, and coach building. That one edifice stands, another floats, and another is suspended on iron springs, makes no difference in the nature of the art, if so it may be called, of building or edification. The persons who profess that art, are severally builders, ecclesiastical, naval, or of whatever other name their work may justify; but building does not become architecture merely by the stability of what it erects; and it is no more architecture which raises a church, or which fits it to receive and contain with comfort a required number of persons occupied in certain religious offices, than it is architecture which makes a carriage commodious, or a ship swift. I do not, of course, mean that the word is not often, or even may not be legitimately, applied in such a sense (as we speak of naval architecture); but in that sense architecture ceases to be one of the fine arts, and it is therefore better not to run the risk, by loose nomenclature, of the confusion which would arise, and has often arisen, from extending principles which belong altogether to building, into the sphere of architecture proper.

Let us therefore at once confine the name to that art which, taking up and admitting as conditions of its working, the necessities and common uses of the building, impresses on its form certain characters venerable or beautiful, but otherwise unnecessary. Thus I suppose, no one would call the laws architectural which determine the height of a breast-work or the position of a bastion. But if to the stone facing of that bastion be added an unnecessary feature, as a cable moulding, *that* is architecture. It would be similarly unreasonable to call battlements or machicolations architectural features, so long as they consist only of an advanced gallery supported on projecting masses, with open intervals beneath for offence.

But if these projecting masses be carved beneath into rounded courses, which are useless, and if the headings of the intervals be arched and trefoiled, which is useless, *that* is architecture. It may not be always easy to draw the line so sharply and simply; because there are few buildings which have not some pretence or color of being architectural; neither can there be any architecture which is not based on building, nor any good architecture which is not based on good building; but it is perfectly easy and very necessary, to keep the ideas distinct, and to understand fully that Architecture concerns itself only with those characters of an edifice which are above and beyond its common use. I say common; because a building raised to the honor of God, or in memory of men, has surely a use to which its architectural adornment fits it; but not a use which limits, by any inevitable necessities, its plan or details."—RUSKIN.

accordance with a true taste and right mode of building, and in this manner to bring about a truer perception of things architectural both among wardens and vestrymen and those commissioned by them to undertake any new and important work.

It would have been an endless and perhaps an ungrateful task, to undertake a revision or criticism of all the errors that have crept into common practice, the toleration of which is an indignity to a cause so holy as that of church building. And that there might be a proper limit to this "Introduction," with the deficiencies supplied, as far as practicable, in the accompanying designs, the author confines his animadversions to those particulars in which common sense will be ready always to sustain him.

It is only by noting these errors, and holding a correct system before the public eye, that great and long-continued abuses can be conquered, and reformations in art effected. As the schoolboy becomes versed in his elementary studies, so will he be better able to proceed to more profound and difficult themes; and I await patiently the time when our countrymen, like the schoolboy, shall be better fitted to prosecute the higher studies of art, and appreciate its development.

"Ye who build the churches of the Lord,
See that ye make the western portals low;
Let no one enter who disdains to bow."

One of the most serious faults, both in the exterior and interior composition of a design—not to speak of other faults that must necessarily follow—is that of introducing doorways for ornament or relief (as the architect, in designing an Italian villa, would make a blank, to preserve the uniformity or equilibrium of a composition in this style,) and running up the

doorway beyond the height required for good proportion or actual necessity, to the detriment, or sometimes total exclusion of the more useful window, whose place in the design it usurps.

It is an ugly fashion, and without any just excuse, to make a door fifteen feet in height, when a rose window, immediately above it, must be reduced to but five feet in diameter that it may not be crushed in the angle of the gable, a practice which seems strange too, just at the time when the "dim religious light" of our Gothic interiors is so much disparaged.

Mr. Wightwick,* in his animadversions upon this defect in continental buildings, says, "Why is it a virtue in the doorways of the foreign cathedrals to be gigantic, while the gigantic of English windows is a fault? Why is the humble worshipper, 'small and of no reputation,' to be admitted through a vast door; while the universal light of great heaven may not shine through a vast window,—unless it be a circular one? * * * * *

"It is one of the peculiar beauties of the English cathedral fronts that the great windows symbolize the pervading expansion of the light of Truth, while the small doors typify the humility of truth's seeker.

"The great window is to the honor of God; the little door for the use of *man*."

The common expression, when adverting to the merits of such or such a church, that "it mimics a cathedral," is first forced from us as we observe the multiplicity of doorways that, in the small church, have sensibly lost their occupation; but which in the cathedral or larger church are required for

* Weale's Quarterly Papers on Architecture.

the ingress and egress of the multitudinous assemblage. This inconsistency has, in the following designs, been kept in view, and the number of doors is made to conform as nearly as possible to the number of sittings in the church.

All doorways that are in common use should have porches with exterior doors to protect the worshipper from the inclemencies of the weather, and those of the interior should be hung on pivots, that they may not disturb him in his devotions. In this manner, will be avoided anomalies in the shape of the port-cochère, minus the roadway, with its slender piers and delicate arches—beauties not wanted here—and then, also, we may dispense with the green baize doors and their glazed bull's-eye apertures, fixtures so common to the porter-house and so inappropriate to the church, which yet, as is generally the case with things most objectionable, are in requisition the greater part of the year.

The sacristy may serve, from necessity, the use of a porch to the chancel, in a small church; but in a large one—and, indeed, in a small one also if possible—it seems advisable to make this porch with a parvise over it, and appropriate the latter to the ancient purpose of a sacristy; it may be approached by a stone newel staircase in the wall; see “Design 6, Plate 2.”

Chancel.

In the brief historical notice of Gothic architecture that heads this chapter, I have said that “*the Church architecture of England, can have no true existence under a system foreign to her own.*” That English Gothic architecture was originated and supported by the religious belief coeval with it, may be readily proved by tracing (as I have attempted very simply

and summarily to do in that notice) the history of its pedigree from its birth to the downfall of art.

Is this the belief of churchmen, vestries and architects of the established church of England, who build churches "to the honor and glory of God?"

Do not the canons of the primitive church now exist? And have not the usages founded on them a place in the hearts of those who look to the past for their great exemplars of piety and religious devotion? And how is it reconcilable, then, to preserve the one with reverence, and mar the religious as well as the architectural beauties of the other?

That churchmen do not believe, when they search the depths of their hearts, that "*the Church architecture of England, can have no true existence under a system foreign to her own,*" it would be illiberal to dispute, though their practice falls far short of their belief.

There are churches built without chancels, but with spaces inclosed in the nave by railing, and called chancels. In these it requires a liberal imagination to discern the symbolism which separates the church *triumphant* and the church *militant*.

Some substitutes for chancels are apsidal spaces with the segment of a circle for their contour, and others there are that can, with architectural propriety, and it is to be hoped without irreverence, be compared only to huge sentry boxes flattened against the nave wall from without. Such abortions become better the edifices of any other society than those of the Church of England, and her daughter in this country.

In theory, the Chancel rises out of the *naos* or nave, and the Sanctuary proceeds from the nave and chancel, and they

cannot remain one within the other, if their typical meaning be preserved, but must be distinct in form, and be as perfect as the hand of man can make them, that they may be the more significant in character and worthy of divine acceptance. "What indeed is there—to drop for a time all considerations of ecclesiastical propriety and rubrical obedience, and to view the matter as a simple question of taste—what is there that the resources of the most ingenious architect can devise, which will compensate, in either internal or external appearance, for deficiency of length in a Chancel? We are bold to answer unhesitatingly, there is nothing; a stinted Chancel must ruin a Church."*

In many of the early churches the chancel and nave were covered by roofs in the same plane, and sometimes without having the great distinguishing feature, the chancel arch. In these instances, however, the elevation of the chancel floor above the nave, as well as the beautiful chancel screen, made "to check the irreverent approach to the solemn mysteries which are celebrated at the Christian altar," designates its position and its holy uses at once.

The screen, or *cancelli*, from which the name chancel is derived, may be of wood or stone, and will not only admit of great beauty of design and diversity of ornament, but was often, in old churches, covered with brilliant coloring and gilding.

The chancel arch, from its conspicuous position, should be turned to the best account, and, with ornaments and symbols, may ever suggest to the mind of the beholder some fundamental doctrine of the Church. Texts from Scripture, and

* Architectural description of S. Andrew's Church, Histon. "Churches of Cambridgeshire."

devices, in old churches, are found inscribed and carved in every possible place. But I am now speaking of the chancel arch, and of their application to this particular part of the church.

In the chancel arch of the beautiful little restored church of St. Mary's, Wymeswold, England, "The capitals and drip-stone ends are emblematical. On the south side is a blinded figure with her crown falling, representing the synagogue—the capital being a cluster of dry vine branches. On the north is an erect crowned figure, representing the Church—the capital, a cluster of vine branches bearing fruit."

The *parclose* differs from the screen, inasmuch as the former is more particularly employed for the separation or protection of a chapel or other portion of the church from the nave or chancel; and, in "Design 4, Plate 2," both the Sacristy and organ chapel are separated from the nave and chancel in this manner; in most of the remaining designs, the organ chapel has a *parclose* both in the chancel and in the nave.

As the designs show more particularly the arrangements and proportions of the chancel, it would be needless here to specify them, and I would advise, in lieu thereof, a minute examination of the designs.

To those accustomed to look upon the chancel, with its numerous north and south windows, and the flood of light they transmit, an apology or rather reasons may be expected for studiously omitting all notice of these north and south windows in the designs.

First, we would dispense with these windows because, the great *east* window can always be made to answer the required purpose—admission of sufficient light.

Second, cross lights are objectionable in the interior of this

portion of the church: the chancel is as it were a picture, with its background, and must receive the proper touches of light and shade, as painters

“Permit no two conspicuous lights to shine
With rival radiance in the same design.”

Third, where the walls are less pierced, as surveyed from without, the mysteries of the chancel seem more profoundly veiled and reserved; and the loss of exterior relief is of less moment than the fine effect produced in the interior by the admission of light from but a single direction.

Gallery.

The personal sacrifices made by the churchmen of bygone times, now almost entirely forgotten, and the religious reverence with which all things pertaining to the house of God, and requisite in their mode of worship, were held by them, remain in bright and immortal contrast with the dark transactions of their persecutors, in the demolition of so many churches which stood as noble monuments of our forefathers' self-denial, faith and zeal.

Love of luxury seems to have waited upon the new order of things, and profanity strove to rid itself of every obstacle to indulgence and every inconvenience that obstructed its repose. Sacrifices had been made, with sincere and holy motives, for the erection of churches to the honor of God. Now a love of worldly things returned. Divine charity, yielded to a prevalent and hateful selfishness, which it had been long used to repress. Magnificent monumental piles, reared for the worship of God, and as fit emblems of a devotional sacrifice which inspired beholders with reverence for

Him and sympathy with human self-denial were now turned to base uses of the earth. The tread of daring sacrilege defiled God's sanctuary. An impious covetousness diverted and appropriated his treasures. An insane jealousy defaced works of art hallowed by ages. Church after church was desecrated in the march of fanaticism. And only the ruins of many a goodly edifice remain to attest the riots of profanity and the barbarism of ignorance.

To speak at present of but one of the many perversions: the beautiful western tower arch that, curved in grace and airy lightness, performed its office of support, was rudely filled up with a huge, hideous singing gallery; and this wretched, anomalous invention has been bequeathed to us, with other displacements and deformities, as one of the specimens of the ill taste prevalent during the Puritan reformation, when religious violence had reached a lamentable ascendancy.

Happy is it that this deformity is receiving the attention it justly merits; and I hope, ere another century rolls around, that it may disappear and be forgotten; not solely on account of its unarchitectural character, introducing discord among all graceful lines with which it comes in contact; but that we may get rid of its ugly appendages, curtains, brass rods and rattling rings, furnishing a screen behind which, as is too familiarly known, levity finds place for its profaning practices.

There are also other as grave reasons calling for its removal. The choristers, to conform to the designs of a Liturgy, should be in or near to the chancel, convenient to the congregation who are to unite in the songs of praise, and whom the choristers are intended to assist, and not to be placed behind or over them, often really acting as a separate body of worship-

pers, and seemingly usurping the exclusive right to chant the Church's psalmody. The removal of this illegitimate gallery will tend, also, to the restoration of those parts of the church which are completely obliterated by its presence.

A novelty and excrescence, it introduced others as exceptionable with it, and the tower vestibule was necessarily formed by the cutting in two as it were of that most elegant appendage to the nave of a church, the lofty tower arch, with its deep, effective, shadowy recess.

The magnificent window that filled the west end of the church with a

"bright radiance and collateral light,"

and

"Casements through which the sunset streams like sunrise"

were therefore foiled in their purpose, robbed of their utility, and hidden away from sight by the massive organ, only the back of which, and the narrow spaces around it, could be gilded by the sun's variegated rays.

To such foreign uses, after the Reformation, which is always associated with the decadence of art, were many noble and useful members of edifices applied. Windows were blocked up, apparently that they might keep in darkness those who worshipped under them.

Countless marks of worldliness and destructive violence disfigured the places where the cross had been sacredly installed, teaching a lesson of devotion and self-sacrifice to men that shall be judged by their works.

A propitious time has arrived, when we should repudiate the errors of the ancestry that has entailed upon us such abominations, and shake ourselves from the subserviency that has so long bound us to those errors, lest they be perpetuated and

in turn transmitted to our descendants, making us *participes criminis* with their ungodly originators.

The total exclusion of the gallery, and the setting apart of an "organ chapel" on the floor of the church, are peculiarities of all of the designs in this volume. And the restoration to their proper uses of the west window and the tower arch with its slender pier shafts and graceful archivolt moldings, forms one of the principal features in "Design 6, Plate 5," and should be considered as important to the good effect of an interior at the west end as the proper depth of the chancel at the east is; a lengthened nave, enhancing the vista, contributes vastly to the beauty of the interior perspective in a church, an effect which can only be obtained by removing the obstructing gallery from its usurped place.

Pew.

The earlier orthography of this word is *pue*, and it signified any open seat. In ancient churches, the worshippers occupied simply low wooden seats with wainscoting between them, sometimes reaching to the ground, and at others only as far down as the seat, with the ends partially inclosed and appropriately paneled, or simply with chamfered angles, and, though often with plain horizontal cap moldings, sometimes enriched with elaborate finials, that "formed an avenue along which the eye was irresistibly directed towards the altar."

The inclosed pew of three centuries ago, still corresponding somewhat with the modern pew, is supposed to have originated with the Puritans, and, with the gallery, which was sometimes a pew as well, was a production, like many

others of the same nature, necessary to satisfy the animal man of the times and conduce in form and adornment as much as possible to his convenience and pleasure, during his *religious devotions*.

Pews of their time were made lofty and spacious, and curtained, that the occupants might avoid the "order to bow at the name of JESUS, and the rule to stand at the Gloria Patri."

Special entrances to those occupied by the lord of the manor, or other high functionaries, are not uncommonly found, in old churches, pierced recklessly through gorgeous traceried and painted windows or other elaborate work, and their interiors were bedecked with gaily colored Brussels carpets and furnished with arm-chairs, hat-stands and fire-places.

With all the utilitarianism and parsimony that attend too often the erection of many of our parish churches at this late day, there are to be found among us as great inconsistencies and expensive absurdities as those which marked a less enlightened age, and these will, in future times, be held up to the same derision as the hat-stand and fire-place of the Puritans are at the present day.

High-backed *pues*, with their occupants in them, remind us of those Roman martyrs in the year one thousand eight hundred and forty-nine, found buried to their necks in the ground; and their doors, alike expensive and unnecessary, unless to proclaim the selfishness of the occupant, are things not now to be encouraged in the erection of a new church, where any spirit of correct taste or appreciation of the true character of God's house is to be found.

In "Design 2, Plate 8, Fig. 6," and "Design 4, Plate 7, Fig. 10," are drawn the proper forms for seat-ends, suitable

to the several designs; they may be plain or ornamented with paneling or other work in concord with the respective styles of the churches in which they may be used.

Altar.

For a brief account of the origin of the stone altar, the following extract, taken from "Poole's Churches," will not prove uninteresting.

"The circumstances out of which the use of stone altars arose were these:—In the earliest ages of the Church, Christians were obliged to retire to the catacombs to solemnize the rites of the faith. In these were buried many of the martyrs; and their tombs presented themselves as the most commodious, and, what was infinitely more valued, the most sacred spots on which to consecrate the Eucharist.

"The affections of the Christian people clung to these solemn assemblies and sacred altars; and after they might choose the place and manner of their service, they erected altars as much as might be, resembling those at which they had worshipped in the days of their persecution. They chose, therefore, very often, the spot on which some martyr had received his crown; and his tomb being erected on the place, furnished the altar of a Christian church."

The communion table, after the Reformation, generally occupied the same position as that of the ancient altar, against the east wall; but it caused great dissatisfaction among the Puritans, who, when in power, either drew it out into the nave, or changed its position to the centre of the chancel, and placed seats around it for the communicants. At a subsequent period, it was restored to its ancient place; though

in some instances, the former position in the middle of the chancel is still preserved.

The easternmost part of the chancel receives its appellation of "The Sanctuary" from its containing the high altar, at which the ceremonies of the Holy Eucharist are performed. It should be elevated not less than one step above the chancel floor, nor more than three; and the material used in its floor should differ from that of the chancel, and be more costly, to mark it as "the holy of holies," and as superior to all other parts of the church in its material as it is in its spiritual character.

"Enter: its grandeur overwhelms thee not;
And why? it is not lessen'd; but thy mind,
Expanded by the genius of the spot,
Has grown colossal, and can only find
A fit abode wherein appear enshrined
Thy hopes of immortality; and thou
Shalt one day, if found worthy, so defined,
See thy God face to face, as thou dost now
His Holy of Holies, nor be blasted by his brow."

There seems more fitness in an altar of stone, if we view it with an eye to symbolism, which should always be present in our minds in whatever we build to the honor and glory of God, that it may the more readily speak its uses and purposes.

"It ought to be of stone, not because of the hardness, but the solidity of faith. Just as the Lord said unto Peter, 'Thou art Peter, and upon this rock'—that is, upon this firmness of faith—'I will build my church.' "

In chancels whose dimensions will admit of it, the altar appears more properly and to a better advantage if removed a few feet from the easternmost wall, though, in most of the designs here presented, it would not be expedient. In these

designs, the altar is placed, agreeably to the present practice, against the wall.

There will be always, if the chancel is of a proper proportion, sufficient space on either side of the altar, against the east wall, for the creed and commandments; but in no instance, should a reredos, if determined upon to receive these inscriptions, be suffered to be elevated above the sill of the great east window; the reasons are too obvious to need specification.

Sedilia.

The stone seats found in ancient churches, near to the altar, and generally in the wall, on the south side of the chancel, have been the cause of much discussion as to their original use. They varied in number, from one to four, and were separately niched in the wall and elaborately ornamented with tabernacle work, buttresses and other designs. Sometimes the seat, sufficient to accommodate two or three priests, was spanned by one arch or canopy, which was, as well as others of a different form, quite plain and devoid of ornament.

The subject of their use was long contested by archæologists, who now seem to have arrived at the truth that they were used as seats for the officiating priests.

In many parish churches of the present day, the stalls with very elaborate canopies peculiar to the cathedral choir, are used as a substitute for sedilia, giving to the interior of the chancel a cabinet-furniture-wareroom appearance, cumbering it to a very objectionable extent and diminishing its proportions.

Limited in their dimensions at the outset, few chancels can bear this additional contraction.

The sedilia as above described, corresponding in simplicity or decoration with the means of the parish, are greatly to be preferred, not only for the relief they afford to the otherwise naked south wall of the chancel, but because they leave the chancel unincumbered, so that it may be seen in all its broad expanse of beauty.

Piscina.

The piscina is usually found in the south wall, and almost always adjoins the sedilia on the east. Yet it is often found, in old churches, in the east wall, and other parts near by where altars are or have been. It is used to receive the water after rinsing the chalice and washing the priest's hands at the conclusion of the celebration of the Holy Eucharist.

Its position should be at a convenient distance above the floor of the sanctuary, and the niche or fenestella be so formed as to receive the credence shelf, either of wood or stone placed above the bason of the piscina, which may thus answer a double purpose, and enable us to dispense with a separate credence table or prothesis, though the latter was more common in earlier ages.

Font.

The font is susceptible of great variety of design and decoration. It is rarely the case, in ancient examples, that two fonts are found alike, notwithstanding the constant intercourse kept up between the architects of the middle ages.

The plan of the bason was most commonly that of the

hexagon, heptagon or octagon, raised upon shafts of an endless variety, though the circular bason upon a simple shaft or block, and often too, of the rudest description, was peculiar to the Norman churches. The bason was always large enough to admit of the immersion of the infant, its interior averaging one foot in depth by about two feet in diameter, comparing strangely with the pigmy scoops that now *adorn* the chancel arch of so many of our churches, and which prevent the possibility of complying with the rubric or the parent's wish when total immersion is desired.

"The heptagon is even less common than the hexagon for fonts; and its shape would be least of all adapted to the font, according to the symbolical meaning of the different numerals, with the elder theological writers; for seven signifies perfection, whereas the font is the instrument of initiation.

"And now we arrive at the octagon, the most appropriate form for the font, and the most beautiful as well as the most ecclesiastical; for the octagon is not only a very graceful form, and very favorable to the reception of sculpture on its several faces; but is also in itself, according to the ancient method of spiritualizing numbers, symbolical of the new birth in baptism; for the seven days' creation of the natural world are symbolized by the number seven; and the new creation by Christ Jesus, by the number eight, in allusion to the eighth day, on which he rose again from the dead.

"And this reason St. Ambrose, more than fourteen centuries ago, assigned for the octagonal form of the baptistery."*

The material used in the construction of the font is not to be questioned, provided it is truthful and the best the parish

* Poole's "Churches."

can afford. Stone is to be preferred, but wooden fonts lined with lead, where it is wished to avoid too great an outlay, are certainly more desirable than the plaster of Paris vases and pedestals that would find fitter place in a garden or show-man's window.

Beside the many deformities and anomalies in decoration exhibited in the fonts of the present day, when ignorance and ill taste are so manifest in the erection of parish churches, there is nothing more deserving of criticism than the impropriety of the position commonly assigned to the font, not to speak of the violation of its typical intent. It is sometimes improperly placed on a step of the chancel, or in the nave near the chancel, in the vista of the long central alley, as if for the admiration of the parishioners, or as a souvenir of the munificence to which it owes its existence; it is thus made a conspicuous object perchance diverting attention from the religious services, and a stumbling-block for the communicant in his passage to the chancel.

The font should be placed at the entrance of a church; or, if there be a west door, at the extreme west end of the nave or aisle; because baptism is the entrance to the spiritual church, as the door is the way into the material church. When the font is not in use, its sanctity should be protected from rudeness and foulness by a cover conforming in style to the rest of its architecture.

When the seats at the west end of the south aisle can be dispensed with, it seems peculiarly appropriate to set apart that portion of the aisle formed by one compartment of the nave arches, inclosed with proper railing, of wood or stone, as the baptistery or receptacle of the font, marking it as sacred and preserving it from profane handling.

Pulpit.

In the Refectory of St. Marie's Abbey, Beaulieu, England,* there is a unique stone pulpit, approached by stone steps in a pierced arcade in the thickness of the wall, which is often described, and justly too, as the *beau ideal* of a pulpit. There are seventeen stone steps leading to its platform, elevating it about seven feet above the ground floor, which, together with its deeply arched recess, its small shafts and their elegantly turned archivolt moldings, and the noble character given to the approach, certainly make it worthy of study and admiration.

Its architectural character is classed as that of early Decorated, though it seems to be much earlier. Stone pulpits of this period were not common, and the finest ancient examples now existing are those of Perpendicular date; at this last period, wooden pulpits abounded, and many fine specimens still remain.

•

The stone pulpit of the Refectory, above described, is cited as a specimen, that its manner of design and construction may stir our emulation to rival its beauties, and greatly to improve upon our present mode of designing pulpits and their approaches.

Although it is desirable that the pulpit should be of stone, the least perishable of all building material, yet it might be deemed an inconsistency to advise its use in the designs contained in this volume, to the exclusion of wood. The principle of having every thing the best of its kind that we can afford, will not be attained until we build more in accordance

* Beautifully illustrated in "Weale's Quarterly Papers on Architecture."

with our circumstances, and dare publish the practice to the world by our works.

If twenty thousand dollars, the amount of ready money which a parish may possess or subscribe, will erect an unostentatious church, in the early English style, with chancel-screen, doors and seats of veritable oak, and font and pulpit of carved stone, and the windows with their symbolical painted glass from the best artist's hands; it is truly more honest, more churchmanlike and more consistent with the dignity of architecture, than to build the same proposed church in the elaborate Decorated style, with altar, pulpit, chancel-screen and doors of pine, grained in imitation of what they should be, and costing in the end the same amount of money. Nay, the evils of this ambitious hypocrisy do not always end here; it is too common to find the church at its completion, greatly involved in debt, a constant drain upon the parish resources, and a fit subject for Sunday alms-begging sermons; while it stands as a monument of untruths, a preacher of falsehood in wood and stone. Therefore I say, if, taking all these things into consideration, a stone pulpit cannot be afforded, one of veritable pine, or cedar or oak can be, and ought to be chosen.

Wo unto those who, extending the Christian church with zeal, to promulgate the Truths of the Gospel, contradict their divine Lord's lessons by their practice, and surround themselves by meretricious illusions and gorgeous falsehoods!

The polygonal form seems to be the best, and is that most peculiar to the ancient pulpit. Its position should be on the nave wall, with steps leading to it from the sacristy; or against a nave pier, with steps winding partly around its base. At the same time, great care should be had so to place it, in

relation to the parishioners, that they may all see and hear the preacher, without the difficulties of which they so often justly complain.

The "sounding board," the name by which a species of covering over the pulpit is known, merits no notice here, unless to be disapproved. "Nothing is beautiful which has not some good and useful end." Its want of utility condemns it, without reference to the toy-like appearance it gives to the pulpit.

According to the principles of acoustics, and particularly to that which teaches the reflection of sound, it is obvious theoretically that the sounding board does not answer its intended purpose, but serves, as a simple trial will practically prove, to reflect the voice of the speaker downward in the vicinity of his nearest hearers, to the disadvantage of those at a distance. The plain rule, "that the angle of reflection is always equal to the angle of incidence," explains this fact without further argument.

The sounding board is an invention of that period when the study of science and the practice of art seemed for a time suspended, and it is one of the many meaningless appendages to a church that have been bequeathed to us by an age of error.

The ancient architects always held in reverence this great fundamental principle of their art—that ornament should ever be made subservient and accessory to the thing adorned, and not that things should be created for the sake of displaying embellishments.

Illumination in gilt and colors was a great medium, in their hands, of giving increased effect to devices and ornaments; but as they did not devise unnecessary subjects for the exhi-

bition of skill in ornamentation, neither did they invent ornament, crosses or other designs, for the sake of illumination; and where ornament and devices and crosses did not exist, as in panels, on shields, or other surfaces, no attempt was made to illumine or paint without the pre-existing object. If there be any reason in this revered principle, it is as much an anomaly in art to paint a cross or ornament in imitation, for the sake of the illumination, or for the relief that may be desired, as it would be to paint a door or a window on a wall for the purpose of producing an equilibrium in the architectural design. Let us then conclude to eschew in our new works, all attempt at painting and gilding altars, fonts and pulpits, if the monograms, or crosses, or ornaments do not exist in *alto-relievo* and in this manner call for the illumination.

Architecture can only exist where light and shade are real. Painting usurps the place of architecture when it is used as a means of decoration; it is only of utility in architecture when it beautifies or gives more expression to forms.

Lectern.

The lectern or lettern, like a great many other beautiful and appropriate appointments in the service of the ancient Church, if not entirely forgotten, fell into general disuse, during the space of time between the decline of art and its revival. And then the ponderous pulpit, with its reading desk, stationed in the midst of the nave alley, shut out the view of the chancel and assumed an air of more importance than the altar itself.

There are three forms in which the ancient lectern was generally made, and which varied with its position; that with upright front and one inclining board; that with two inclin-

ing book boards; and that where four book boards incline pyramidally to the apex; made either revolving or stationary upon a center shaft, and all admitting of great variety of architecture.

There is also another and very appropriate symbolical form; that of the eagle or pelican raised upon a slender shaft and pedestal, with outstretched wings to receive the book. It should be made of metal, which from its strength admits of greater delicacy and lightness of form than any other material, and therefore interposes less obstruction between the eye and the chancel. A lectern of the latter form is better adapted to larger churches than those here treated of—to churches where there are more priests than one officiating.

A lectern with two book boards, one for the lessons, looking west, and the other for the prayer-book, looking east, is more suitable for smaller or parish churches: and its proper position is in the body of the church, placed to the north or south of the middle passage of the nave; that the priest in reading the lessons may look towards the people, and with them, may likewise face the east in prayer.

Warming and Ventilating.

The condemnation so frequently and lavishly expressed by scientific men, and also by those who are better able to find fault than make corrections, touching the modern mode of warming and ventilating churches, is too generally visited upon the architect, disparaging his judgment, carefulness, or good intentions, and unjustly damaging his reputation.

The hasty heedlessness of vestries and the ignorance of building committees are often shielded in this manner from righteous censure, when, at the same time, one or more of

them may have been the agency through which the empirical inventor, with his "patent hot air furnace" or multiplicity of *ventilating* registers, has just obtained encouragement and a numerous signed diploma to assist him in further experiments upon the health and happiness of his fellow-creatures.

Science seldom assists the furnace maker in his ingenious and complex contrivances, and the laws of nature are to him of little consequence, so long as he can diffuse "the greatest amount of heat with the least quantity of fuel" from his huge atmospheric destroyer, and in return receive his pecuniary consideration.

If it be really through the connivance of the architect in his specification, and his acceptance of a proffered bribe, that the furnace vender is enabled to impose upon the church his heating and ventilating apparatus; then the vestry or building committee—even though the manufacturer of furnaces come from among them—are still responsible to their constituents for their carelessness in commissioning a dishonest architect to undertake their works.

It may seem unjust to confine these strictures on dishonesty to the sphere of my profession, but there is not here space, nor is it compatible with the nature of this work to say more, or a picture of vast incapacity, deception, dishonesty, bribing and bonus giving could be drawn, whose details would severely reflect upon too many officials, church building committees, builders, and others who call themselves architects, but have no right to the name.

The architect's vocation is to design, and with the aid of artificers to build from his design; and no matter how many invectives may be launched against him, he cannot be made

professionally or otherwise responsible for the manner in which the building he erected is warmed or ventilated when it is effected through machinery devised by others.

If the building committee think fit to introduce Mr. ——'s ingenious contrivance for warming the church, and also his patent ventilating register, adjusted by a cord and tassel; they are responsible, and not the architect; they are responsible to their God for the workings of these poisonous processes by which so many of their confiding fellow-creatures are insensibly hurried into eternity.

Men of known scientific capacity, high honor, and intellectual worth, should constitute building committees, and not those whose very occupations, daily transactions, and limited knowledge render them unfit to take upon themselves the erection of a house to the honor of God, or to provide for the trusting, refined and gentle portion of good Christian people.

If it be insisted, "Such an one is our largest subscriber, our moneyed man and the main-stay of our enterprise;" let us answer, "Then forego your enterprise, or delay proceedings until you may be able to build without his assistance; for Christ is the corner stone of the Church, and not his pretending follower, and the edifices devoted to His service should be founded in justice and honor and holiness."

If the church is to be warmed and ventilated under the direction of the architect, then it becomes him to reflect seriously upon the mode that will best accomplish the purposes of heating and airing, and being thoroughly satisfied that the many-voiced denunciation of the prevalent mode is just, let him seek substitutes contrived upon new and different principles. The simplest is the best; and though it is impracticable to adapt the spacious and elegant fire-place of former times to modern purposes, we can yet keep the prin-

ciple in view, and, as Franklin did, modify it to suit our more economical material and present requirements.

If the principle of combining ventilation and warming in the same apparatus is kept in view—and there are abundant reasons for so doing—the hot air furnace will soon fall into disuse, and scientific investigation may then take another and wiser direction, and humanity receive its benefits. As it is, the hot air, rushing up from rusty, complicated twistings, that seem to burn up its vitality before it accomplishes its purpose, and the noxious gas generated to find its easy exit through expanded joints, must still be breathed, if shrewd, untaught inventors are to be encouraged, in preference to the more skilful and scientific.

Pure air favors health—bad air begets disease. A volume of words should not be needed to prove these maxims. The mere mention of the modern drawing-room will be suggestive of sad reflections on the insalubrity of vitiated air, dry heat and the effluvia of crowds; and it should be our earnest effort to abate similar ills and their baleful consequences in erecting our structures for religious worship and edification.

The preceding remarks are founded upon a belief that a substitute can be adopted with good results; and here an effort to that effect shall be made, lest the author be classed with those idle cavillers who are ever ready to condemn, but loth to devise, when a remedy is desired of them—who acknowledge the prevailing evil, but fear the scoffs that await them should they dare to oppose the rage of current opinion.

To be brief then in the description of a substitute in which warmth and ventilation shall be combined.

Fire is an agent as useful in ventilating as in warming a

given space. We feel the warmth of the fire ; and the atmosphere that comes in contact with it is burned up. The vacuum produced by the combustion of oxygen is readily supplied by an influx of fresh air, and thus by the rush of air the impurities and bodily exhalations are continually and insensibly expelled. Carbonic acid gas, which is exhaled from the lungs, is heavier than the atmosphere, and can only be expelled from below, by means of registers placed in the floor and so arranged as not to be exposed to heavy currents of air.

The coal then—or wood where it may be preferred—must be brought up from the cellar and placed in receptacles, “rough hew them how we will,” that will further these ends.

Grates built in the wall are not economical, though they subserve one of our two desiderata—that of carrying off the impurities of the air we breathe. Stoves are economical, and diffuse a greater amount of heat than any other heating apparatus—which would fulfil our second purpose ; but they injure the atmosphere and do not expose a sufficient surface of fire to the air to effect the requisite degree of ventilation.

Combining, then, the two principles—either one being partly good in itself, and both together being perfect—we have the sheet iron “Franklin,” introducing the grate, set in fire brick, and adapted in size, design, number and ornament, to the church in which it is intended to be used, and we place it near to the wall, with the sheet iron pipe connecting horizontally with the smoke flue, or further removed, with an increased length of pipe, which is the most economical position. Care should be taken to include in the design a copper vessel of some kind, made to contain water, that by means of its evaporation the atmosphere that is robbed of its moisture in coming in contact with the heated metal, may be replenished.

Having provided the requisite warmth, and carried off the impurities of the atmosphere, the supply of fresh air is now to be considered. The patent registers usually placed near to the ceiling, allowed an egress to the rarified or lighter air, *which is good air*, and robbed us of the warmth that otherwise might be enjoyed and which is so expensive a commodity in winter. These registers must be taken down and placed a sufficient distance above the ground to avoid its gaseous exhalations, and in such positions in the wall, opposite to the fire-places, as may be most convenient. Their construction in the wall must be so modified as to connect *indirectly* with the outer atmosphere through a flue, so as to avoid perceptible draughts of air. In this way a sufficient supply of fresh air will be introduced, both summer and winter, without resorting to the homely expedient of "luffer boarding clear-story windows"* or disfiguring or annulling the uses of other portions of the church.

For warm weather, two or three small luffer-boarded windows, placed opposite one another, will answer all the purpose of carrying off the rarified air near to the roof; but, in cold weather, they must be closed. Where the roof is not open to the rafters, windows made in the same manner, and inserted in the gables, will tend to produce a current, and carry off the heated air between the timbers of the roof.

Canons of Gothic Composition.

The following rules are esteemed by Mr. Paley among the principal canons of ancient and modern Gothic composition. They deserve a more distinguished place than the conclusion

* The New York Ecclesiologist, Vol. II. No. II. p. 53.

of a chapter. Still, as they are fair deductions from its principles, they may constitute its fit sequel; and, on account of their great importance, it is trusted that they will be the last to be forgotten by the reader. They are arranged in juxtaposition that they may the more easily be compared.

THE ANCIENT PRINCIPLES WERE:

1. To make uniformity of design entirely subservient and secondary to utility. For instance, never to insert a useless window or an unnecessary buttress in one place solely to fill up or relieve a blank space, or because it occurs in another corresponding place: but to pile together, to insert, to add, with any degree of fearless irregularity whatever. Ignorance of this leading principle has been the cause of half the failures in modern designs.

2. To use decoration only as a means of relieving necessary constructive features; and never to add any detail adventitiously, for its own sake, solely for effect and irrespectively of position, meaning and propriety. Thus, to make a blank window or doorway, to set up an unmeaning niche without a statue in it, to erect sham gables, block off buttresses midway, because the lower part is not seen (!) as at the Pitt Press, Cambridge, or insert canopies with nothing for them to receive, are examples of false principles. Almost all architects of the last generation committed these errors. They saw niches and turrets, and odd-looking excrescences in old churches, without ever knowing what they once contained, or why they were erected.

THE MODERN PRINCIPLES ARE:

1. To make buildings *uniform* by equal and similar wings, corresponding doorways, windows of the same size and kind, level and regular elevations, not broken up into parts of greater or less prominence and height.

Every Gothic new building in Cambridge exhibits these faults, which are the certain result of the same hand composing in two contradictory styles, Classic and Gothic.

2. To add unnecessary and unmeaning ornament in conspicuous positions to attract the eye and produce a showy appearance, leaving the less exposed parts bare and naked in the contrast.

Hence we may deduce two further rules: first, to make construction and propriety of composition the primary, decoration the secondary object, and not to decorate at all until a substantial and durable fabric shall have been fully provided for; secondly, to regard reality and truthfulness before mere show, and to conceal nothing from a fancied impropriety of appearance.

3. To attend *exclusively* to utility and to let effect take care of itself. Thus if there is any reason for part of a window to be encroached upon, as at Hanton, Notts, or one pinnacle to be larger than another, as in the tower at Grantham, or one angle of a tower to be propped with a larger buttress, as at Horningsea, near Cambridge, or an arch to be contracted or widened to any extent,—to obey the demand fearlessly and without hesitation. Modern men often adopt the most awkward expedients to avoid what is really a great beauty instead of a blemish.

4. To create ideal extent by multiplicity of parts, by distribution of thrusts, division vertically and horizontally by buttresses and string-courses, repetition of features and compartments of continuous vaults and roofs; and ideal height by narrowness combined with length, which are the conditions of the most efficient perspective.

5. To attain infinite variety, both of details and arrangement, even to the extravagant indulgence of caprice by combining, adapting, and diversifying *given elements*, as mold-

3. To place effect before utility, as by building an inconvenient or unnecessary feature because it is supposed to look well. Hence we have doors which afford no entrance, turrets with no available interior, and chimneys which do not emit smoke.

4. To erect buildings whose primary idea is that of a large unbroken area, without columns and arches, with wide roofs and without distinct component parts. Such *were* the great majority of the modern churches, which often had neither buttress, nor string-course, nor arch in the whole design; in short nothing Gothic about them except the minor details.

5. To use *usque ad nauseam* a few hackneyed Gothic details, copied from celebrated churches or cathedrals, or borrowed from books; and to apply these without sufficient re-

ings, arches, shafts, panelings, tracery, etc.

6. To make extreme simplicity and extreme richness of workmanship compatible with the same true principles, by always regarding the latter as merely the *luxury of art*, and the legitimate scope for ingenuity, expenditure and gradual execution.

7. To regulate the exterior plan solely by the internal requirements.

8. To aim at apparent lightness, combined with actual strength; and at the same time to satisfy the eye by giving the idea of security from each part having its own peculiar support.

gard to difference in the *kinds* and character of buildings.

6. To sacrifice solidity and strength to unnecessary and adventitious ornament, and to impoverish the fabric to obtain the greatest possible amount of conspicuous but needless decoration.

7. To arrange exterior elevations without regard to the nature of the interior, or to force the latter to suit the former; as to give the outward appearance of nave and aisles where there are no columns or arches inside; of three gabled roofs where there is but one flat ceiling within; of pinnacles or gable-crosses which are but chimneys.

Hence the custom of building *masks* either to hide necessary parts which do exist, or to give the idea of those which do not.

8. To be satisfied with actual weakness without even apparent lightness, as by the use of plastered timber to imitate stone, and by the omission of essential constructive details, such as shafts, moldings, and the visible resistance of lateral thrusts.

Nomenclature.

"ORDER is Heaven's first law ; and this confest,
Some are, and must be, greater than the rest."



THE vexed controversy on the nomenclature and the classification of the several styles of English medieval architecture seems now somewhat to have subsided. The archæologist has apparently exhausted his vocabulary of terms in applying them to designate the different styles ; and the student, for whom these classifications were benevolently prepared that he might more directly and easily arrive at a true understanding of Gothic architecture, is almost as much perplexed in endeavoring to find the least abstruse authority among so many guides, as to determine the merits of the various systems of nomenclature proposed.

With those of Rickman, Bloxam, Milner, Dallaway, Paley and the English Ecclesiological Society and divers others before him, verily the task of selection seems hopeless ; and the study of most of them would involve him in confusion, and leave him hardly more edified than one living before these productions saw the light, in that lethargy of the art which our authors have striven to dispel, and that chaos of architecture which they aimed to organize into science.

That they have simplified the study of Gothic architecture, it is presumed will not be generally conceded. Though their

productions teem with theories, inventions, and hallucinations of fancy, as might be expected from such versatile talents and prolific imaginations, engaged upon a subject invested with such high importance and such deep interest to all estates of men in the land; yet the end has not much varied from the beginning, and the theory of one writer is made to answer that of another, metamorphosed as it may be, by multiplying the number of styles, by the device of needless distinctions, by changes of names, and by a wordy rhetoric.

These remarks on the nomenclature of the art are introduced because I owe to the reader a reason for adopting the names of the *Early* English for the First period of English Gothic architecture, the *Decorated* English for the Second period, and the *Perpendicular* English for the Third period.

It is the nomenclature first proposed by the late Thomas Rickman, F. S. A., in his "Attempt to Discriminate the Styles of Architecture in England." And "the character of this extraordinary man, whose genius first reduced this chaos into order, was not calculated to diminish the violence of his opponents." Hence sprang into print and publicity the vague ideas and inappropriate phraseology of those academic plagiarists who delight to find additional occupation in a novelty of the day, whose prolific pens hasten to reproduce the ideas of original inventors, and who have done little better than substitute names with additional divisions of styles, and to expand this admirable author's descriptions of his own classified divisions.

The use of Mr. Rickman's terms and chronology has now become general and well understood. The exactness dis-

played in his discriminations of the styles, the precise date assigned to each—allowing always for a transition from one style to the other—the few terms used and their appropriateness to the subject, render his work an easy basis of study, rather to be emulated than perverted by the professors of architecture.

There may be a more beautiful terminology; but his system has now been so long in use that a mere change of names, while we retain his original, chronological order, is truly useless, and tends by its vagueness to mystify the minds of many with regard to that which was before so lucid and precise.

This feeling seems to have been predominant with Mr. Boid, in his "History of all the Principal Styles of Architecture, when adopting First, Second, and Third, in order to avoid as much as possible the use of technical language in a popular work."

Mr. Boid's classification, says the English Archæological Journal, from which I borrow the following terse remarks, was "perhaps more sensible than the general abuse of Rickman's technical terms with which every one has been wearied of late. But this judicious avoiding of technical language is widely different from the plan proposed by the [English] Ecclesiologist in 1846, of adopting, 'First, Middle, and Third Pointed,' as a new technical language, and doing away with the name of 'Gothic' altogether, as inappropriate, overlooking the fact that this name is applied, in the same manner as we apply it, in every language in Europe."

"It is easy to show that the objections to this proposed new nomenclature are at least as great as any that apply to

Rickman's terms. In the first place, the transition from Norman, or what Mr. Bloxam calls the 'Semi-Norman Style,' is unquestionably the '*First Pointed Style*.' It is not a Gothic Style, but it *is* Pointed. Secondly, to describe a church as having 'First Pointed round-headed doorways,' and 'Middle Pointed square-headed windows,' is more absurd than any thing in Rickman. Yet such examples do occur, and that not by ones or twos, but by tens and hundreds. In some districts, almost every church will be found with either Early English round-headed doorways, and sometimes pier-arches also, or with Decorated square-headed windows. In other words, it was a very common practice in the thirteenth century to use round arches with all the details of pure Gothic work, and in the fourteenth century it was still more common to use square-headed windows, often with very beautiful moldings and details, and tracery.

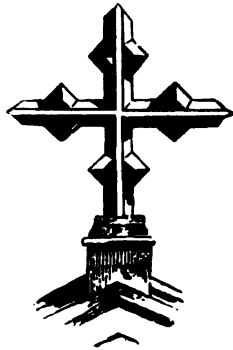
"Thirdly : It would be very possible to build a thoroughly good Gothic church, taken entirely from fine ancient examples, without a single pointed arch throughout. This is fatal to the scheme ; it proves that the pointed arch is not an essential feature but an accident of that style, which by the common consent of all Europe is called Gothic, and whatever the origin of the name may have been, any attempt to change it is now too late. Another serious objection to the proposed 'new nomenclature' is its vagueness and want of precision, no one can say where the first style begins or ends."

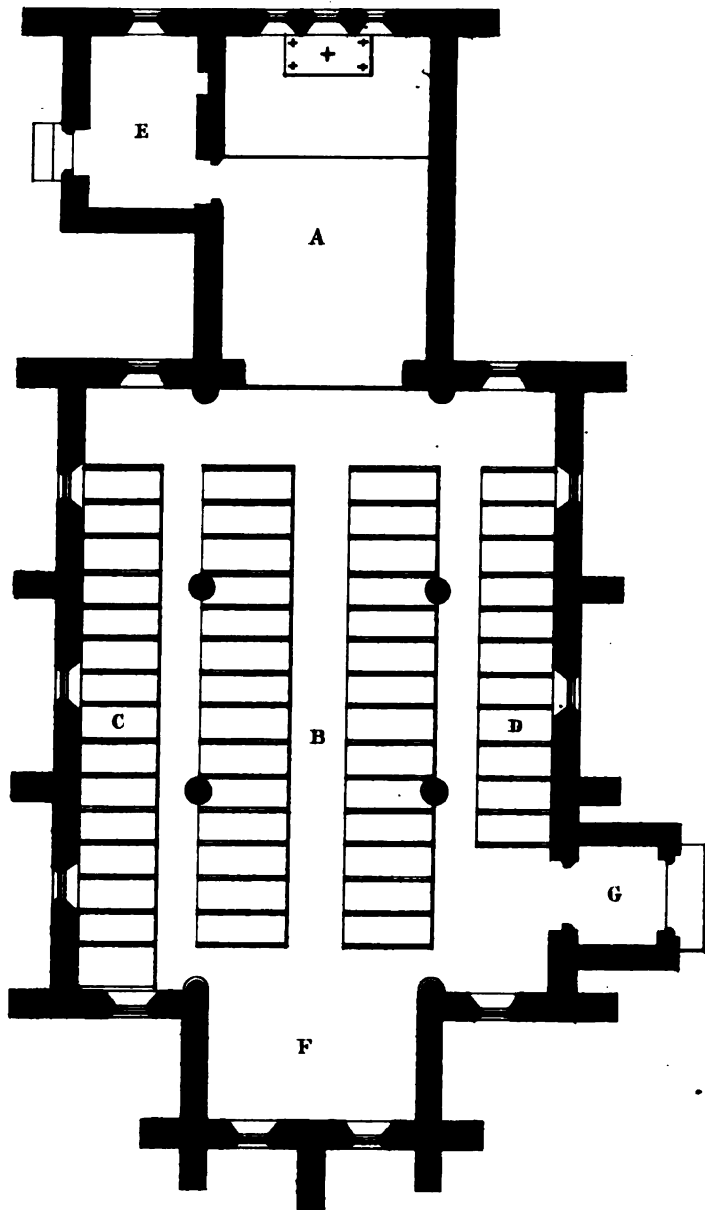
The preceding extract has been made, not solely for the purpose of confirming the ideas advanced of what is correct, easy of practice and eminently useful, but also that there may be greater force and meaning given to the objections that are urged against the adoption of the proposed nomenclature of

the English Ecclesiological Society, which has been promulgated here to a certain extent by a kindred society,* perhaps with more praiseworthy zeal, than sensible propriety.

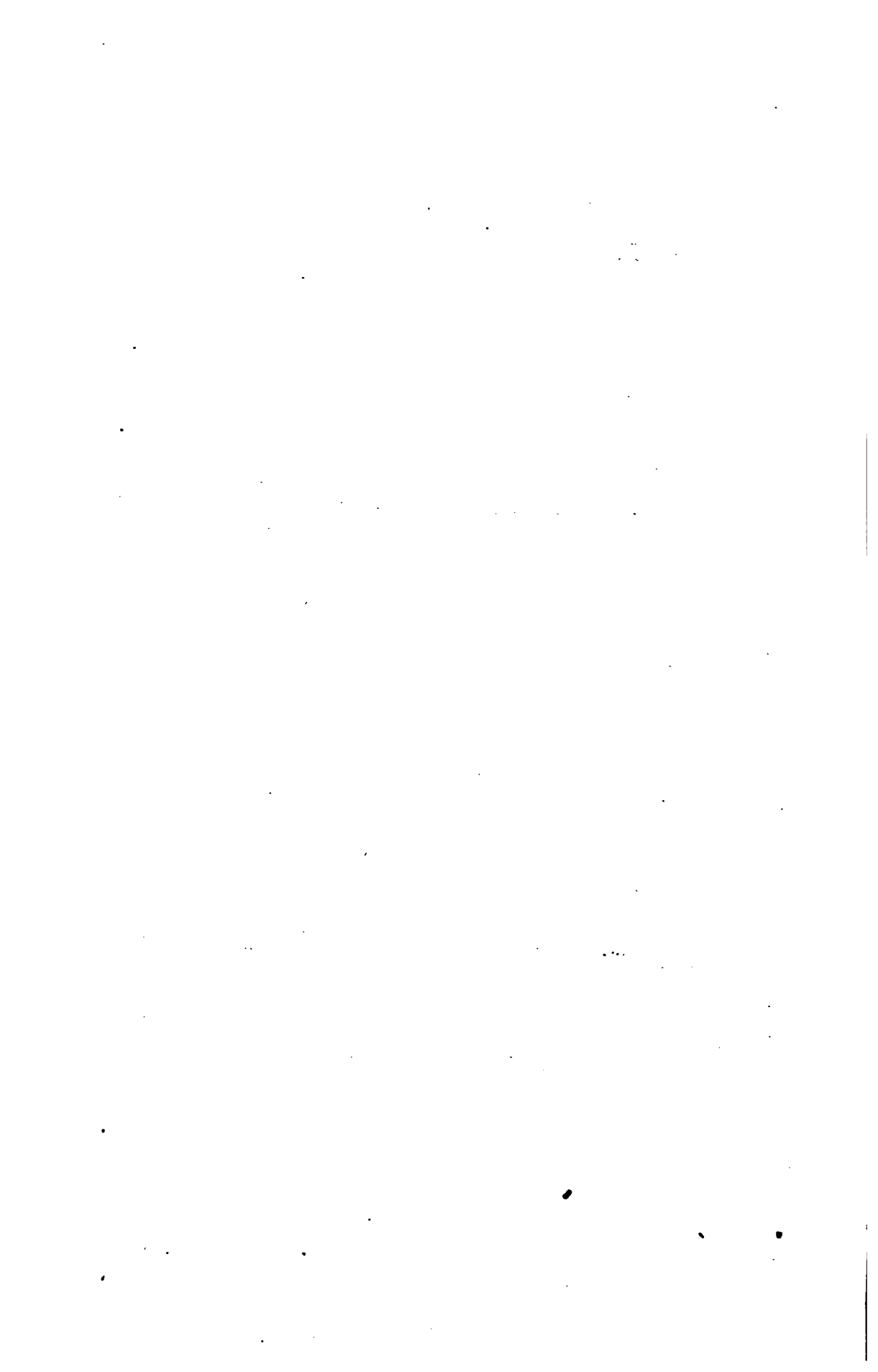
The study of architecture is but in its infancy among us, and its greatest encouragement and most effectual progress are to be achieved by the professors of the art who elucidate its first principles clearly and truthfully. For this reason Rickman's discrimination of the styles, which was the first ever placed before the English people, still remains in the ascendant and bids fair to maintain its position.

• The New York Ecclesiological Society.





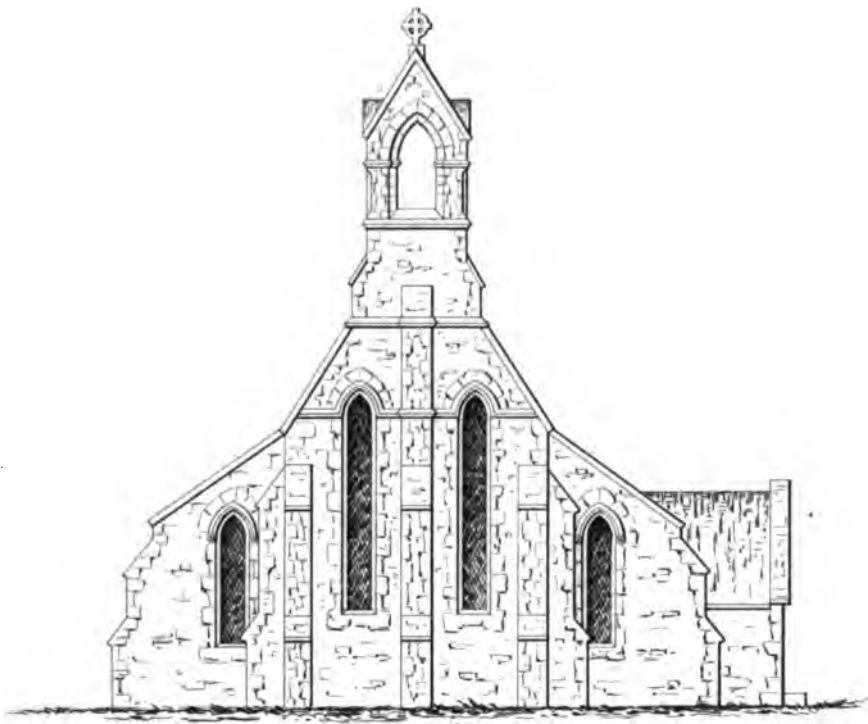
SCALE OF 1" = 10' 0" 1" 2" 3" 4" 5" 6" 7" 8" 9" 10" FEET.



Early English.

DESIGN I

PLATE III

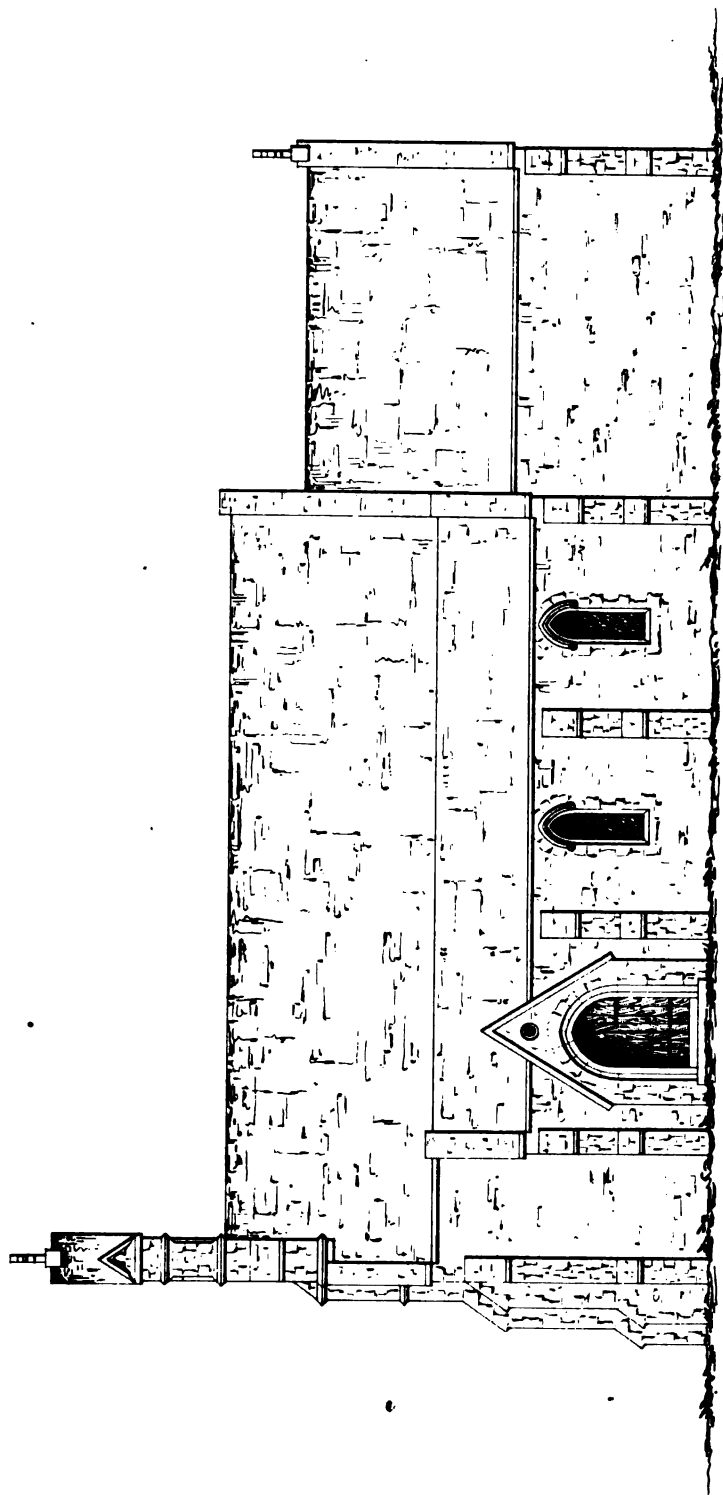


J. Coleman Hart, Arch^t del.

Lith. & Engr. N.Y.

West Elevation.





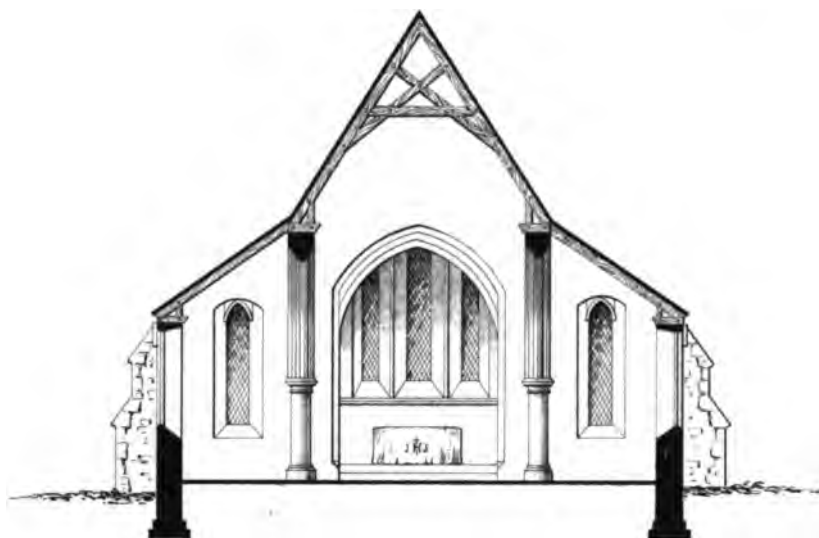
South Elevation.



Early English.

DESIGN I.

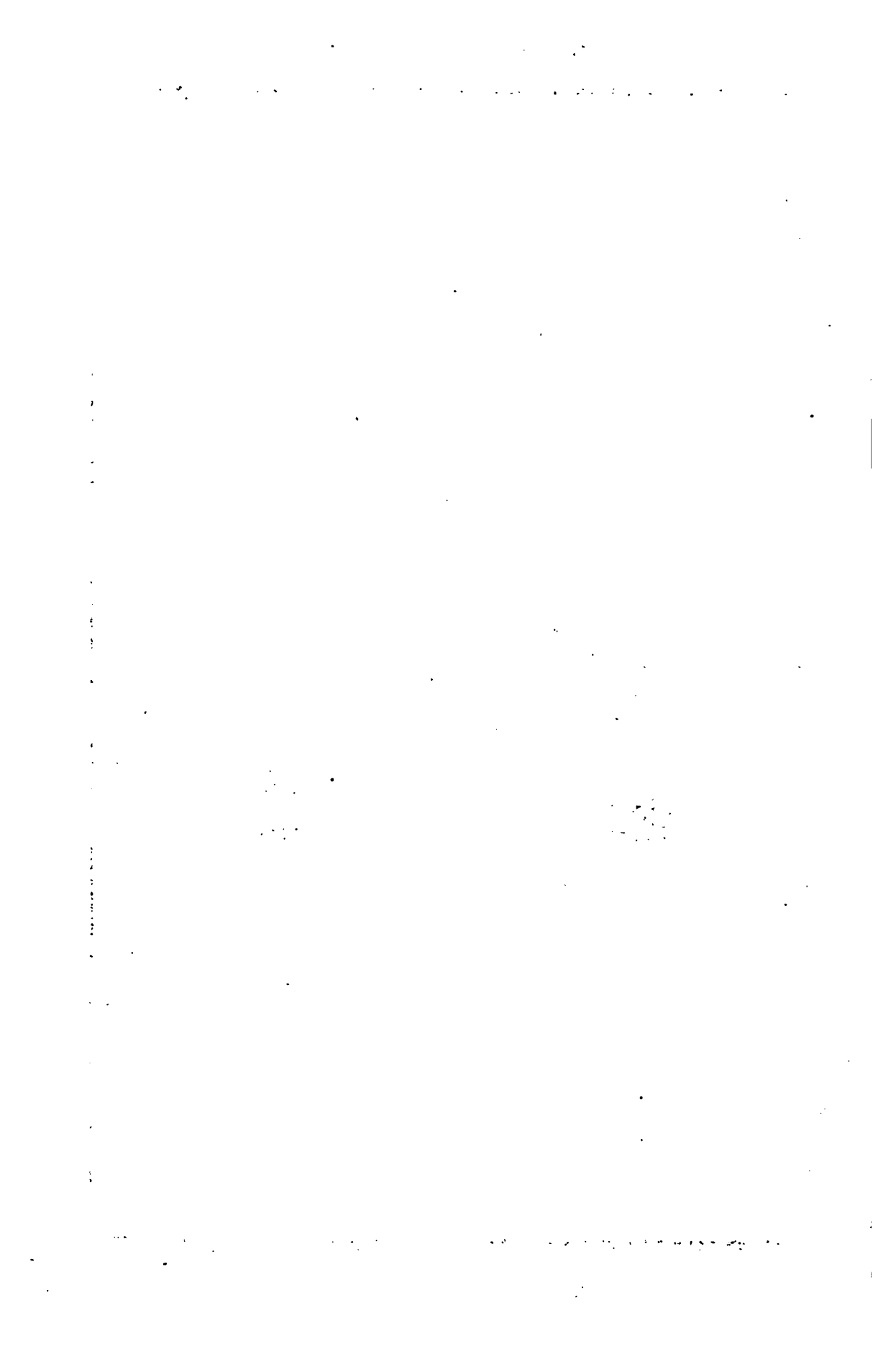
PLATE V.



J. Gorman Hare Archt. 50

L. G. G. & Co. N.Y.

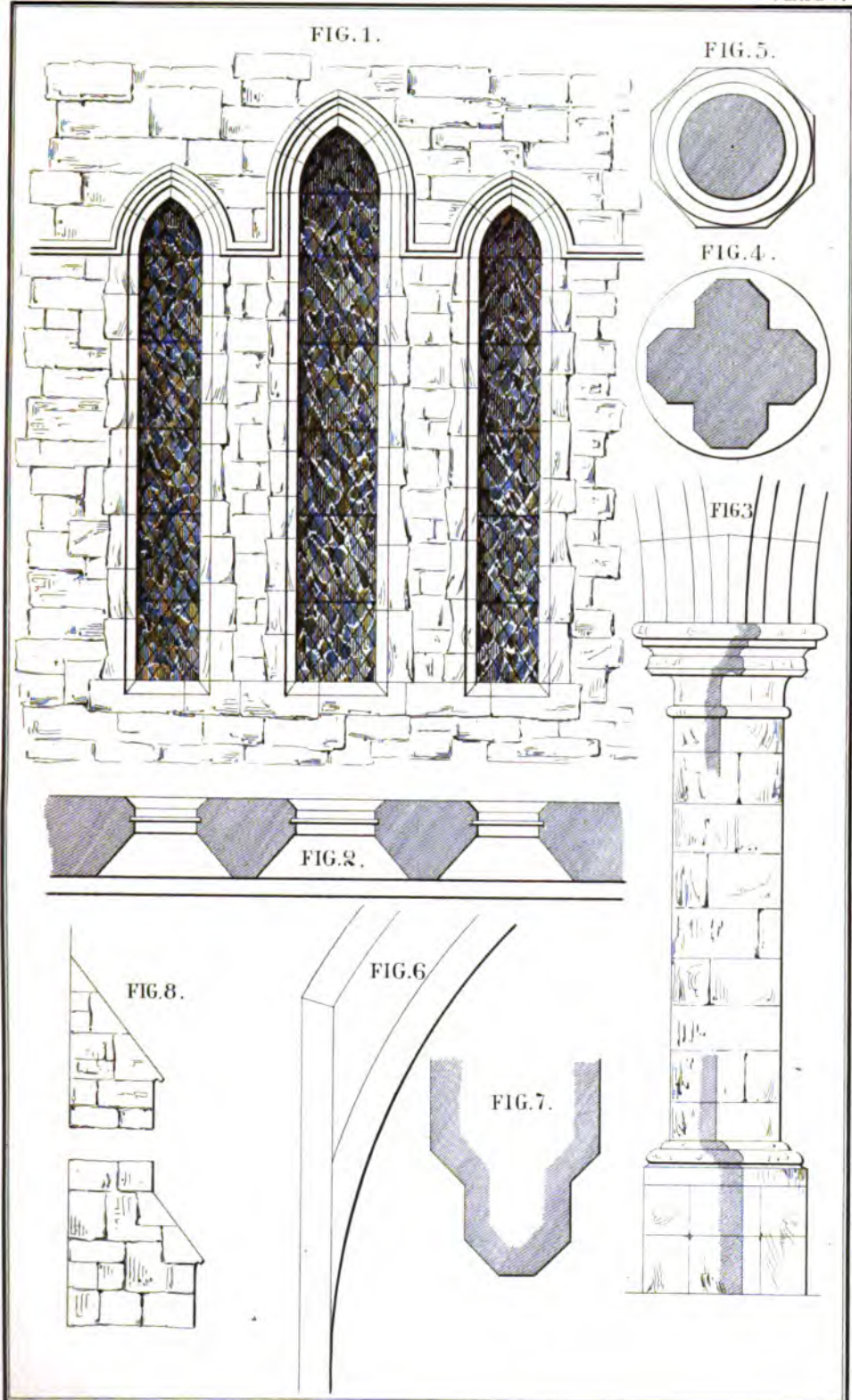
Transverse Section.



Early English.

DESIGN I.

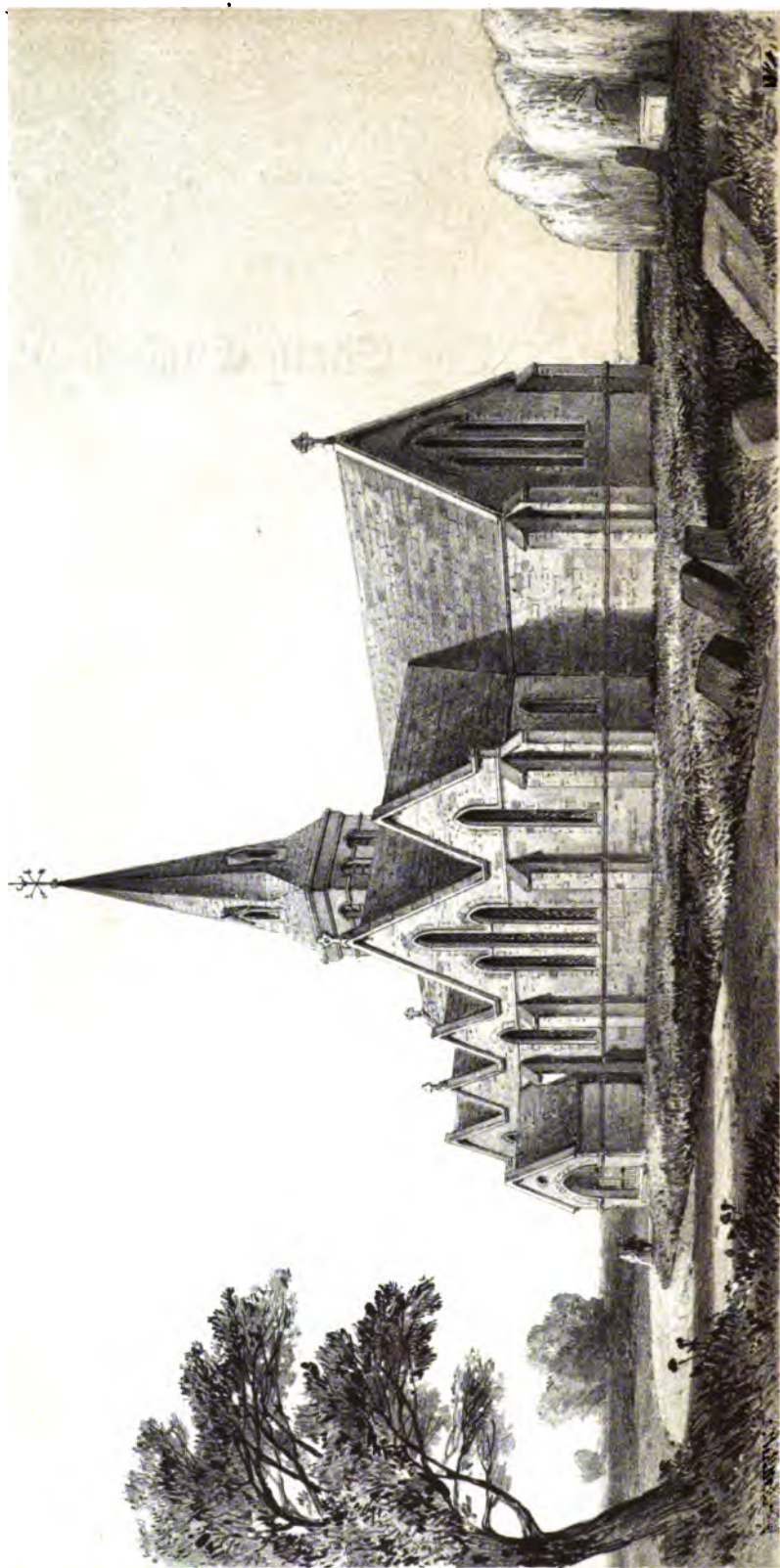
PLATE VI



J. G. Mansel, Archt. del.

Edw. & Son, Sculp. & Lith.

Analysis.



Edinburgh, West, front del.

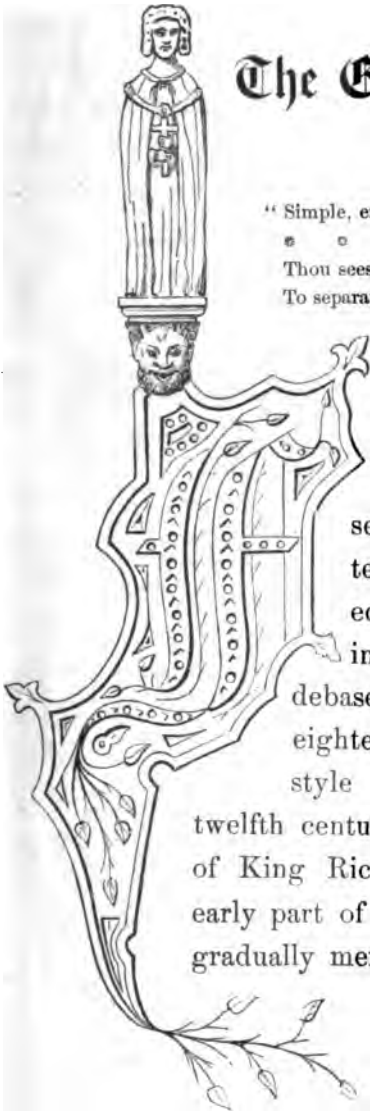
Edinburgh, West, front del.

perspective view.
from the South West.

The Early English Style.

" Simple, erect, severe, austere, sublime.

• • • • •
Thou seest not all ; but piecemeal thou must break,
To separate contemplation, the great whole ;"



FOLLOWING the classification that I have adopted, that of the late Thomas Rickman, this is the second period of English architecture, and the first of the pointed or Gothic styles. It prevailed in all its magnificence and without debasement about one hundred and eighteen years, succeeding the Norman style towards the latter part of the twelfth century, or commencing in the reign of King Richard I., and continuing to the early part of the fourteenth century, when it gradually merged into the next or Decorated style.

The reign of Richard I., beginning in the year one thousand one hundred and eighty-nine, was the principal period of the transition from the Norman to the Early English style.

"Just at the period when that which may be called the Round or Lombard style of architecture appeared throughout the dominions of the Latin church, most firmly and universally established—when it had, from its first source, spread in every direction, as far as the most extended influence of that church itself—when its forms might, in a manner, have served to mark, throughout Europe, Asia, and Africa, the precise extent and limit of the papal authority—when, from its universal prevalence, it seemed to have secured an unlimited duration in the latter half of the twelfth century—we see it all at once abandoned for a style, both in its principles, and its ornamental accessories, entirely new, and different from that, and from every other former style."*

It was during the prevalence of the Early English style that a great impetus was given to architecture and probably to the projection and erection of a greater number of ecclesiastical edifices than in any former or subsequent period. Its greater flexibility and easier adaptation to the ecclesiastical wants of those times, the reduction of what was heavy and cumbrous, and the almost total disuse of any architecture that partook of a pagan character, soon firmly established it as purely Christian and, as it were, indigenous to the soil of the Church.

Doorways.

Early English doorways may be classed as those with *shafts*, plain, banded or filleted—*continuous* when the arch moldings are carried down the jambs—*foliated* when the inner arch is trefoil or cinquefoil headed, with the outer

* Hope's Historical Essay on Architecture.

moldings sometimes conforming to it—and *double arched* when the opening of the arch will admit of the center shaft dividing the door in two, with a quatrefoil or other ornament in the tympanum.

There are but few doorways of the last-named style in small churches—it is mostly confined to cathedrals and other large buildings.

The several varieties of the pointed arch are in promiscuous use in the doorway, though the drop arch is the most common, and, when the jambs are deeply recessed and the arch moldings numerous, the outer arch has the appearance almost of a semi-circle; the round arch, with Early English shafts and moldings, is occasionally met with, and also the square-headed trefoil; the latter is confined to priests' doors, doors to turrets and passages.

The shafts are small and delicate, placed in rectangular recesses, almost always detached, and they were wrought out of Purbeck marble or other fine material, different from that of the rest of the doorway; the capitals are generally enriched with bold and well-relieved foliage, but as often consist of plain deeply undercut moldings; the base of the shaft is various, and there is one generally used that has a most striking resemblance to the Attic base, with its rounds and hollows, the latter deeply undercut.

The arch moldings are cut in rectangular planes, and when they are numerous, all of the characteristic moldings of this style will be found among them.

Although there are good examples of doorways without any ornament, yet there is a general enrichment of the hollows

of the arch moldings and the jamb between the shafts with the tooth ornament, leaves and other peculiar decorations.

The drip-stone is seldom omitted, and its terminations are either decorated with heads and clumps of characteristic foliage, or are returned horizontally; the latter form is most usual and often continued around buttresses and other projections.

The doors are seldom paneled or traceried; their relief consists in the ornamented hinge and appended iron scroll work, sometimes on the inside as well as the outside.

The hinge, in some instances, is merely a plain iron strap, with heavy projecting nail heads, and, in others, the scroll work added to the hinge, covers the door in great variety and beauty of design.

It was during the Early English period that the art of working in iron reached its highest medieval perfection.

Windows.

In describing the peculiarities of this style it might be said that the lancet-shaped window was a conspicuous feature. It is observable in large buildings, but the remark does not strictly apply to parish churches, in which other forms predominate.

The lowness of the walls in Early English churches did not encourage the adoption of the long, narrow, lancet-headed windows; those in general use are of greater width in proportion to their height than what is usually called the lancet, and it is very remarkable that they increase in width to a certain extent as the height is diminished.

The equilateral arch, requiring a wall of less altitude, and

affording a wider opening, was necessary in the construction of windows that were limited in height, and it favored the early mode of building, as may be naturally concluded, since the equilateral-headed window is the most common. That as much height as possible might be gained inside, the arch of the interior was seldom made concentric with that of the exterior, but either of a drop or segmental form, with a soffit quite or nearly horizontal.

The exterior angles of the jambs are but slightly chamfered, thereby allowing great depth of splay in the interior, which necessarily increases the width of the opening in the plane of the wall within to several times the width of the glazed aperture. The arris of the interior angles thus formed was relieved by a simple bowtel or a series of moldings that were seldom omitted; the chamfered arch at the head, with or without corbels, is peculiar to the windows of this style, and is generally found with the segmental and drop arch.

The single-light, equilateral arched window—its greatest beauty consisting in its simplicity—was in general use during the prevalence of this style. In its gradations to the window of the next period, the rude trefoil arch was not unfrequent, and from it arose the primitive cusp, formed independently of the outer splay and attached to the soffit of the arch.

The triplet window, the most remarkable combination and peculiarity of this style, is chiefly confined to the east end of the chancel, and it is in this position that its symbolism is most suitable.

Two windows long and narrow, and placed side by side, are not unusual in the same situation; neither the triplet nor

doublet window is however confined to the east or chancel end, as there are many examples of each in various other positions.

Windows in combination of three, five, and seven—the central one being the greatest in width and height, with the others decreasing in these respects as they are placed outward—were ordinarily included under one drip-stone, with their divisions so small that they seem more like lights of one window, than really separate and distinct openings; their individuality is in some examples preserved to a greater extent by forming the drip-stone from the same centers as those of the arch of the window.

From these combinations of narrow windows and their perforations and their soffit cusps arose the single, traceried window of the next style.

Unlike the preceding style, the ornamental shafts of the windows are mostly confined to the interior, and on account of their diminutive diameter and great length, they required additional strength in the central band; their base partakes of the Attic peculiarities, and the capital, though often devoid of ornament, is as often characteristically enriched.

The arch moldings receive their greatest beauty from the boldness with which they are undercut; the tooth and other ornaments are common to the hollows of these moldings.

The shafts of the piers and jambs vary in number, are isolated and, like those of the doors, were cut out of marble or fine stone, different from the other work, and polished.

Such ornamentation of the interior of the windows is peculiar to this style; the depth of jamb, and its deep shadow, and the effective grouping of all its appendages, were entirely forgotten in the interior of windows of the succeeding styles.

Clear-stories are very rare in Early English churches and consequently there are but few examples of clear-story windows; these are the circular and spherical triangular, trefoiled or quatrefoiled, and the two light windows, differing but little from those of the aisles.

Piers.

The plan of the Early English pier varies from great simplicity to complexity of arrangement; the oldest are octangular and circular, placed in some churches alternately.

Following so closely the Norman style, when piers were massive and ill proportioned, they retained at first somewhat of the Norman character—the pier being generally the last member to be affected by the introduction of any new style; but as architects became better skilled, they were satisfied with piers, always of sufficient stability, yet smaller and with more delicate outline.

This led to greater boldness and consequent improvement; and the use of a central pier, around which clustered delicate, detached shafts, varying in number—of some finer material than the main pier, generally of Purbeck marble highly polished—predominated over all others. At length the slenderness of the shaft and its increased length demanded the band or annulet as additional security; this was placed midway on the shaft, and fastened to the main pier: in large buildings, the number of the bands is variously increased.

The capitals of the piers are numerous in design and for the most part plain; the upper members heavy, in bold relief and bell-like shape, and, where there are shafts, these members often continuing around the centre pier: where the shaft

of the pier is multangular or circular, the moldings conform to its plan.

When the capitals are ornamented, the foliage approximates to nature, flowing and well relieved; it is on the capitals of the pier shafts that the most elegant sculpture is seen.

The bases, like those of the window shafts, bear a strong resemblance to the Attic base; the designs of the bases are not so numerous as in the other styles: the reversed ogee is not uncommon.

When the plinths are rectangular, as they are generally in circular and octangular piers, the triangular spaces below the torus, on the plinth top, are relieved by a leaf springing out of the torus or lower member of the base, and gracefully falling on these triangular spaces.

Arches.

No peculiar form of arch is, without exceptions, a distinguishing feature of any one of the Gothic styles separately, as some have supposed; and I will therefore extend this description to arches in general, as used in this and both of the following styles.

The *drop* and the *equilateral* arch were employed in all of the Gothic styles. Towards the latter part of the Perpendicular period, they gave way to the introduction of the *four-centered* arch, which is to a degree a peculiarity of the style, although an invention of an earlier period.

The *lancet* arch is, though not invariably, characteristic of the Early English style: it is sometimes employed in the Decorated, but very rarely in the Perpendicular.

The *ogee* or *contrasted* arch is an invention of the Decorated period, and was continued in use through the Perpendicular style, yet with less frequency than in the Decorated.

The *pointed-segmental*, the *round*, the *trefoiled* and the *cinque-foiled* arches are also common to the Early English style; the latter are most usually found in panels, arcades, niches and doors of small proportions.

It is not uncommon in Perpendicular work, particularly in screens, tabernacle work and paneling, to find all the arches which are used in the three different styles, blended together in one design; this mixture denotes late or debased work, as does also the flattening of the four-centered arch.

Buttresses.

In the Norman style, in which the walls were very thick, the buttresses were merely flat projections, apparently built out of the wall, more for the purpose of relief, than as a distinct erection necessary for support or resistance. A continued reduction of the thickness of the wall, and an increased projection consequently given to the flat buttress, eventually made it a distinguishing feature in the future styles.

Early English walls are not so thick as those of the Norman works, and the omission of the tie beams in the construction of their roofs, rendered it necessary that greater resistance should be given by the walls to the pressure from the roof. It was effected by the buttress. At first this buttress was but a slight improvement on that of the Norman, but it gradually received greater projection, with a reduced width; the incli-

nation of the set-offs is very acute, the lowest member sometimes continued laterally around the buttress, when allowed by the reduction of the upper stage; the stages are few, most frequently two in number, with the angles of the buttress sometimes chamfered, plain sloped, or ornamented at their terminations.

The pinnacled, gabled and arch-buttress were not in general use in this style, and were mostly confined to large buildings.

The gablet, which evidently suggested the gabled buttress, was commonly placed on the sloping weathering of a buttress, coping to gables, et cetera.

One particular worthy of notice is that the walls of a majority of the Early English churches, and their buttresses, are devoid of all base moldings, or any approximation to a base.

Moldings.

The moldings of this style are not very numerous; they are principally marked by their constantly recurring deep undercuts and bold, intervening members.

The bowtel, and rounds and hollows predominate, with various modifications; the bowtel is varied with the addition of one, two or three fillets; there is also the bowtel of one fillet almost reduced to an arris, and the rounds deeply undercut, leaf-like, on one side; splays are sometimes used; rounds and hollows join without separating fillets, and two or more smaller members are placed between larger ones.

There was less geometrical precision used in the drawing

of the Early English moldings than in any of the subsequent styles; but in their positions, as in the arches of doors and windows, and in nave arches, the moldings, often being drawn with easy and graceful curves, were made so to conform, that the contour of the most conspicuous members, would touch an imaginary line drawn in a series of rectangular planes.

The enrichments of the moldings are not numerous, though rendered very effective through the bold and easy manner in which they are relieved in the hollows.

The dog-tooth ornament, in general closely repeated, is the most prevalent; leaves and flowers, singly or in running patterns, were also used.

Roofs.

At one time but little importance was attached to the supposed Early English timber roof, on account of the simple and rude manner of its construction; in fact almost any rudely constructed roof, though properly belonging to the Norman period, was considered peculiar to the Early English style, and so it was difficult to cite any examples possessing architectural merit.

The primitive character of the framing work, and the presence of the rude nail-head carved upon the tie-beam—which was supposed to be the tooth-ornament in its incipient state—tended greatly to promote the error that *the Norman roof originated in a later period.*

Faithful archæological research has discovered for the Early English style its own peculiar roof, and assigned the rude tie beam roof to a much earlier period.

The Early English roof is distinguished by the truss-like arrangement of its timbers; the rafters being placed one foot six inches or two feet apart, and each pair of rafters secured together by diagonal or cross braces, and sometimes with the addition of one or more collar beams, placed above or horizontally intersecting these cross braces. The timbers at their intersections were either tenoned or halved and secured with wooden pins; the average of the scantling was four by five inches.

In some early examples, a rude tie beam, placed at remote intervals, was retained with this arrangement of the rafters; but without tie beams, this roof is designated as the "trussed-rafter-roof;" it was without ridge pieces or purlins; the plate was placed on the center of the wall; on it were halved pieces resting horizontally and at right angles, to each of which was secured the foot of a rafter; the inner end of each piece was retained in its proper position by a vertical piece framed into it and the rafter, which gave additional security to the whole framing. Two plates were sometimes used, when the inner one was slightly projected and molded as a cornice.

The aisle roof, in the early period of this style, was formed by continuing the rafters of the nave roof over the aisle. When the clear-story was used, a separation of the nave and aisle roofs became necessary.

The disconnection of the two roofs made but a slight difference in their framing. The principal timbers of the aisle roof were yet made to correspond with those of the nave. A similarity is also to be observed in other parts of the roofs.

When the width of the aisle would not admit of the use of

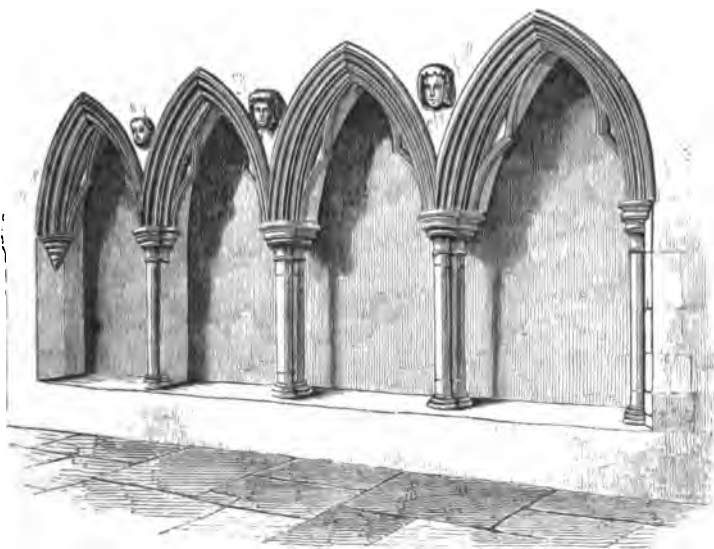
the lean-to roof, the gable roof was substituted, and made of low pitch that it might not obstruct the light of the clear-story windows.

These, and the following remarks on the aisle roofs of this period will apply as well to those of the succeeding styles.

Gable roofs, although frequently of great elevation, are seldom found of an equilateral pitch or an angle of sixty degrees.

Aisle roofs were generally of a low pitch. The rise from the exterior or aisle wall to the nave wall was not more than sufficient to place the wall plate a few inches above the apex of the nave arches. In this manner was avoided unnecessary walling over the nave piers and arches.

The inclination of a roof is not a distinguishing feature of either of the Gothic styles, but varies in each from the acutely pointed to the most obtuse angle.



Sedilia in Chancel, Denford, Northamptonshire.*

* Rickman.

Description of the Plates.

DESIGN I.

	ft.	ft.		ft. in.	ft.
Chancel,	15	by 25	North Aisle, }	7.6	by 45
Nave,	15	by 45	South Aisle, }		
Sacristy,	13	by 8	Organ Chapel, .	10	by 15
			South Porch, 6	by 7.	

Plate I.

Perspective View taken from the South West.

Plate II.

Horizontal Section or Ground Plan.

A. Chancel.	D. South Aisle.
B. Nave.	E. Sacristy.
C. North Aisle.	F. Organ Chapel.
G. South Porch.	

Plate III.

Geometrical View of the West Façade.

Plate IV.

Geometrical View of the South Façade.

Plate V.

Geometrical View of a Vertical Section of the Design, taken from North to South, looking East.

Plate VI.

ANALYSIS OF THE DESIGN.

FIG. 1. Geometrical Drawing of East Triplet Window.	} 4 ft. = Inch.
" 2. Horizontal Section of the same.	

SCALE

- FIG. 3. Geometrical Drawing of one of the Nave Piers, with Vertical Sections of Capital and Base Moldings. SCALE
- | | |
|---|---------------|
| “ 4. Horizontal Section of Nave Arch at the Capital of the Pier. | 2 ft. = Inch. |
| “ 5. Horizontal Section of one of the Nave Piers, showing the Base. | |
| “ 6. Geometrical Drawing of part of the Chancel Arch. | |
| “ 7. Horizontal Section of the same at the Spring of the Arch. | 2 ft. = Inch. |
| “ 8. Geometrical Drawing of the Set-offs to Buttresses. | 4 ft. = Inch. |

The **Sittings** are about 200 in number.

DESIGN II.

	ft. in.	ft. in.		ft. in.	ft.
Chancel,	23	by 30	North Aisle, . .	11.6	by 49
Nave,	23	by 62	South Aisle, . .	11.6	by 62
Sacristy,	11.6	by 11.6	Tower,	12	by 12
South Porch, 8 by 10.					

Plate I.

Perspective View taken from the South East.

Plate II.

Horizontal Section or Ground Plan.

A. Chancel.	E. Sacristy.
B. Nave.	F. Organ Chapel.
C. North Aisle.	G. Tower.
D. South Aisle.	H. South Porch.

Plate III.

Geometrical View of the East Façade, showing the Tower to the North West.

Plate IV.

Geometrical View of the South Façade, with the Spire of the Tower omitted.

Plate V.

Geometrical View of a Vertical Section of the Design, taken from North to South, looking East.

Plate VI.

Geometrical View of a Vertical Section of the Design, taken from East to West, looking North.

Plate VII.

ANALYSIS OF THE DESIGN.

	SCALE
FIG. 1. Geometrical Drawing of the East Triplet Window, showing half of the interior and half of the exterior.	4 ft. = Inch.
" 2. Horizontal Section of the same.	
" 3. Geometrical Drawing of Set-offs to Principal Buttresses.	2 ft. = Inch.
" 4. Geometrical Drawing of String Course continued around the Building.	1 ft. = Inch.
" 5. Geometrical Drawing of Set-off to the Second Section of the Tower.	4 ft. = Inch.
" 6. Geometrical Drawing of Set-off to the First Section of the Tower.	

Plate VIII.

ANALYSIS OF THE DESIGN (continued).

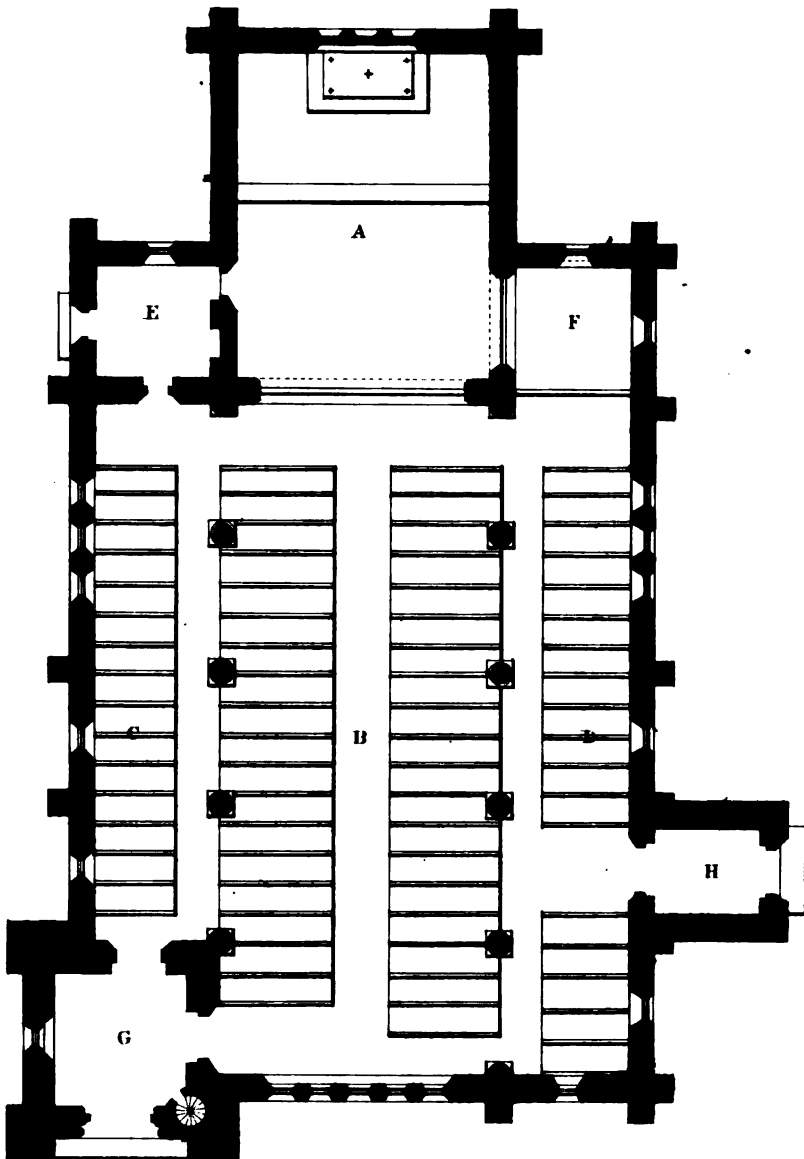
	SCALE
FIG. 1. Geometrical View of the West Door in the Tower.	4 ft. = Inch.
" 2. Horizontal Section of Jamb and Archivolt Moldings to the same.	2 ft. = Inch.
" 3. Section of the Moldings of the Chancel Arch at its Spring.	1 ft. = Inch.
" 4. Vertical Section of the Capitals to the Nave Piers.	
" 5. Vertical Section of the Base to the same.	2 ft. = Inch.
" 6. Geometrical View of the Ends of Two Pews.	
" 7. Vertical Section of the Capping to the Ends of the Pews.	1 ft. = Inch.
" 8. Geometrical Drawing of the Drip Stone termination to the East Triplet Window.	

The **Sittings** are about 400 in number.

Early English.

DESIGN II

PLATE II



SCALE of 0 5 10 20 30 FEET.

J. Coleman Hart. Archt. del.

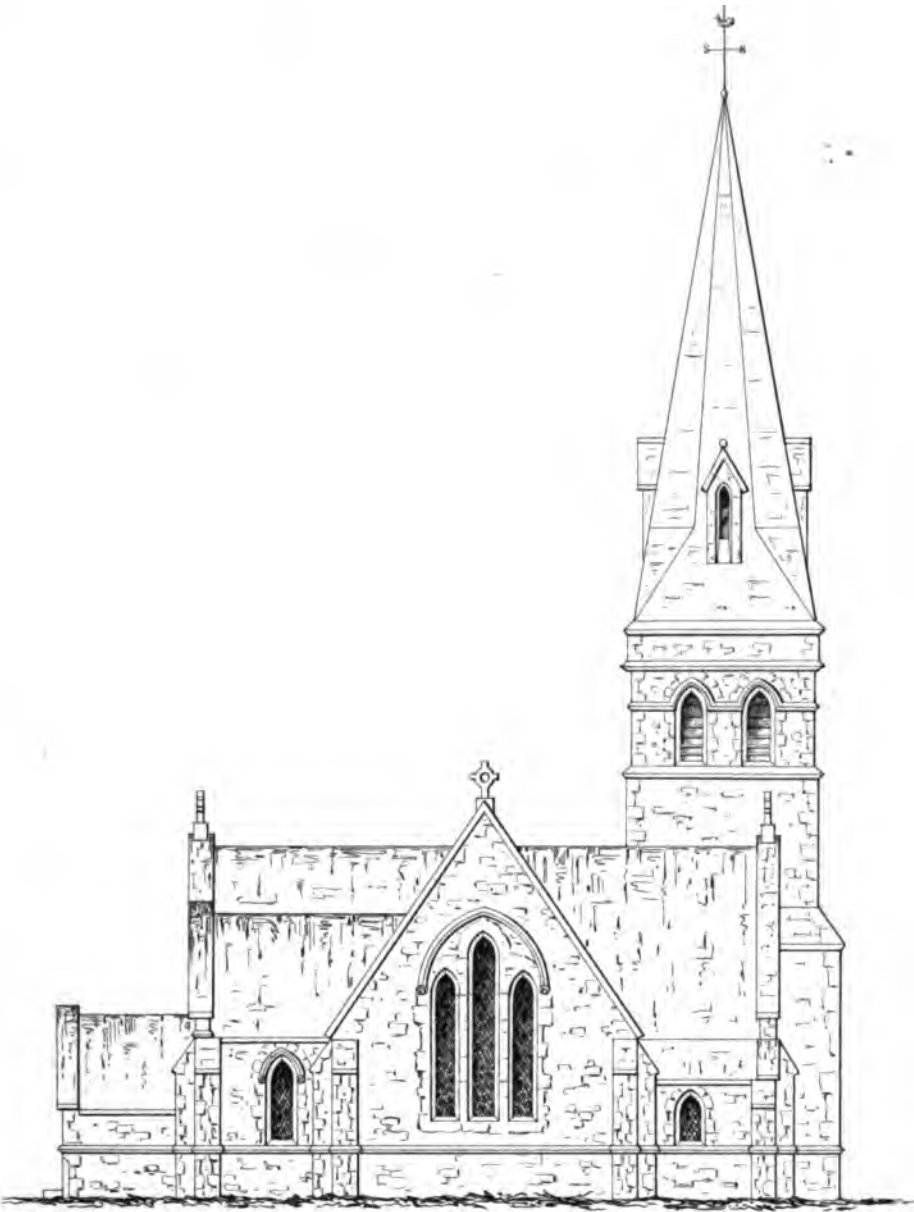
Lith. of Harvey & Co. NY

Ground Plan.

Early English.

DESIGN II.

PLATE III.



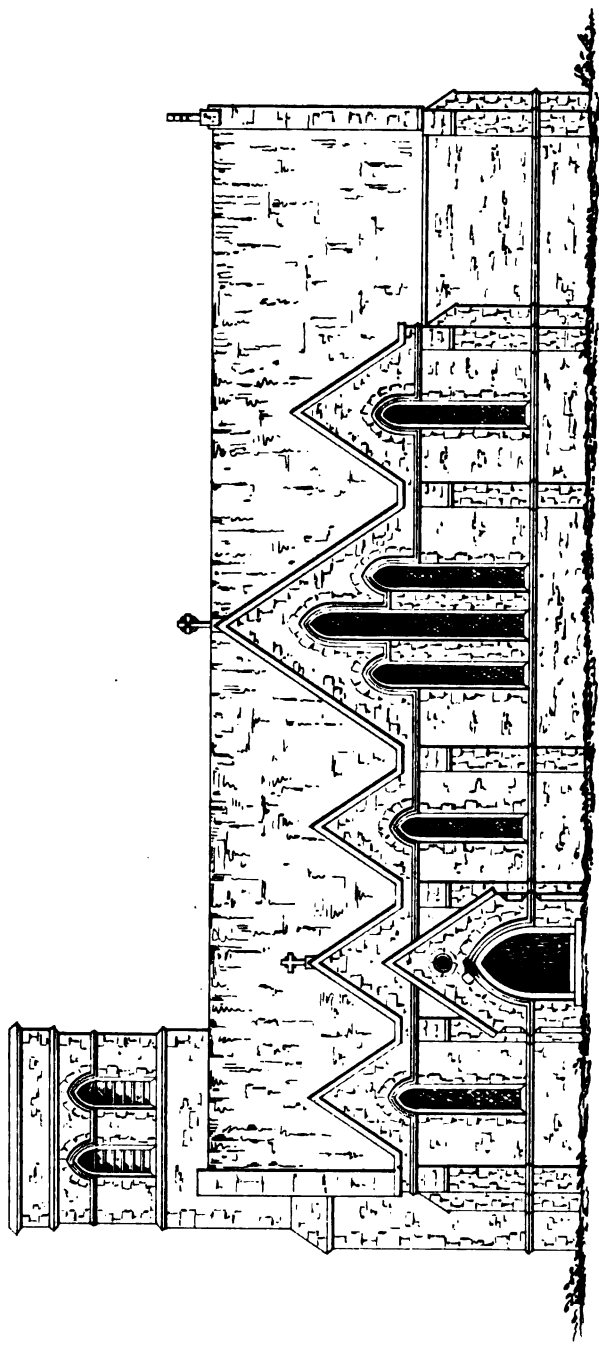
J. Coleman Hart, Arch^d del.

Lith. of Sarony & Co. N.Y.

East Elevation.



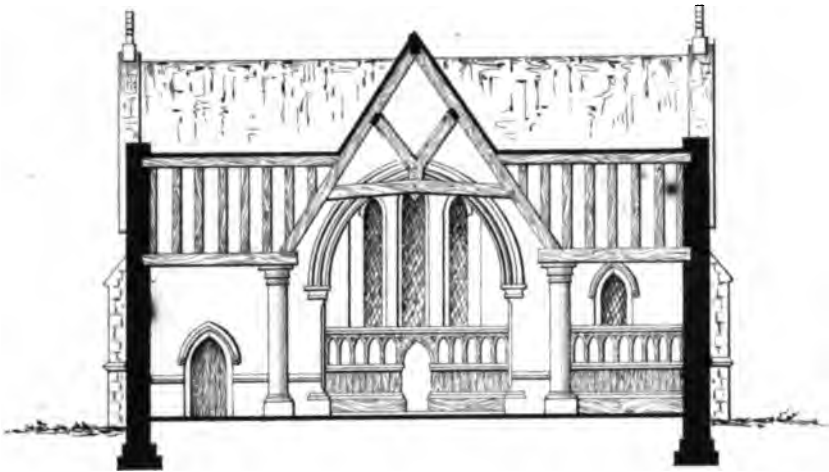




South Elevation.

James H. Baker

Lith. of Sarony & Co. New York.

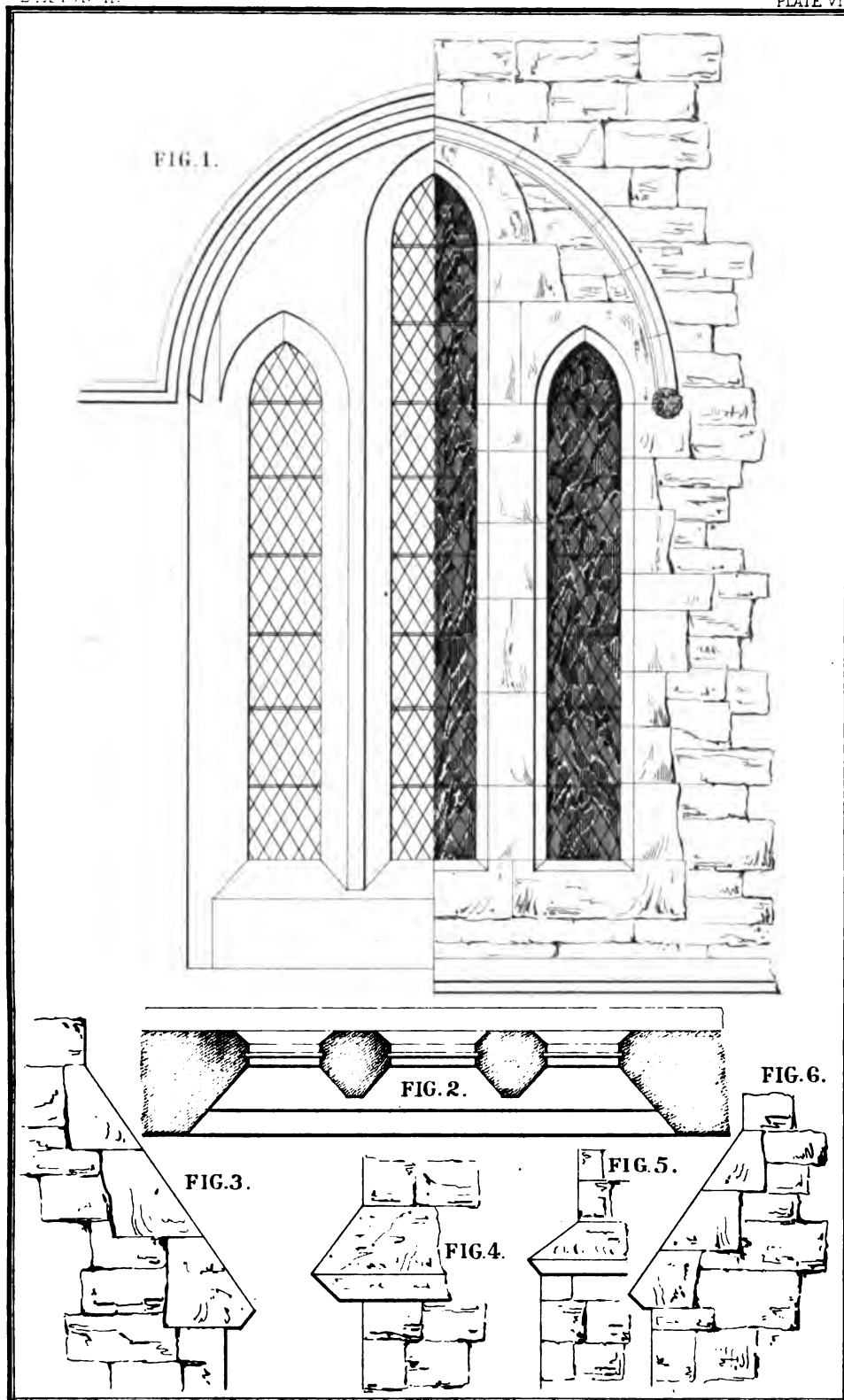


Transverse Section.

Early English.

DESIGN II.

PLATE VI.



Analysis.

Early English.

DESIGN II

PLATE VIII.

FIG. 4.

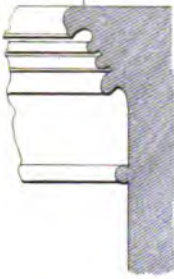


FIG. 3.

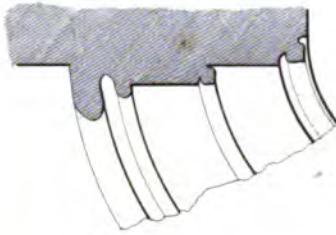


FIG. 5.

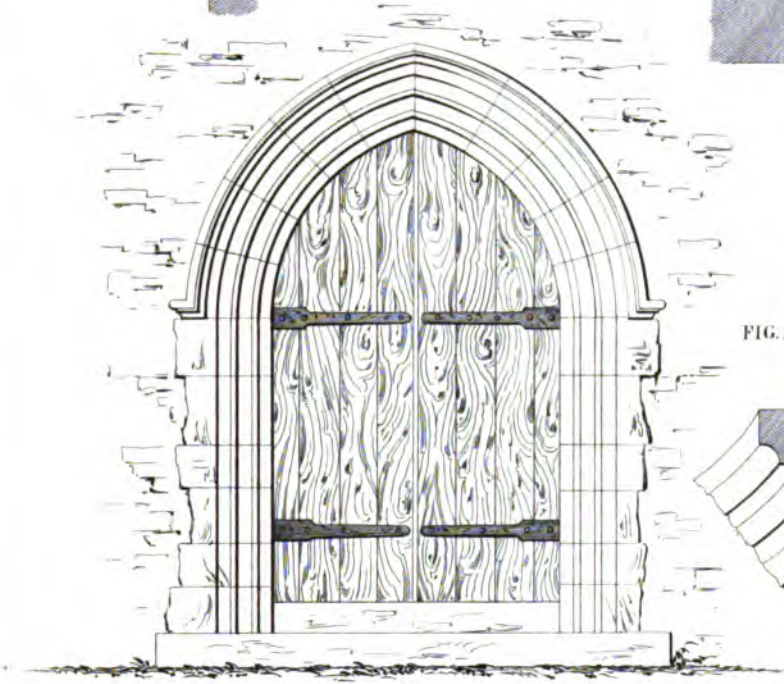
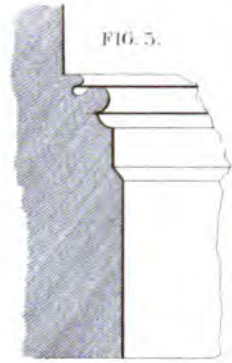


FIG. 1.

FIG. 2.

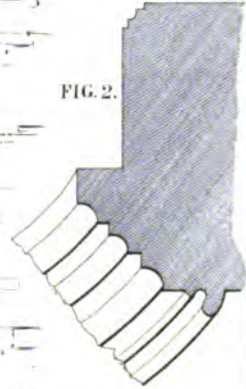


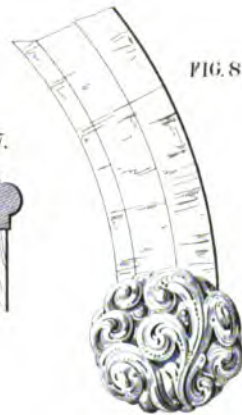
FIG. 6.



FIG. 7.



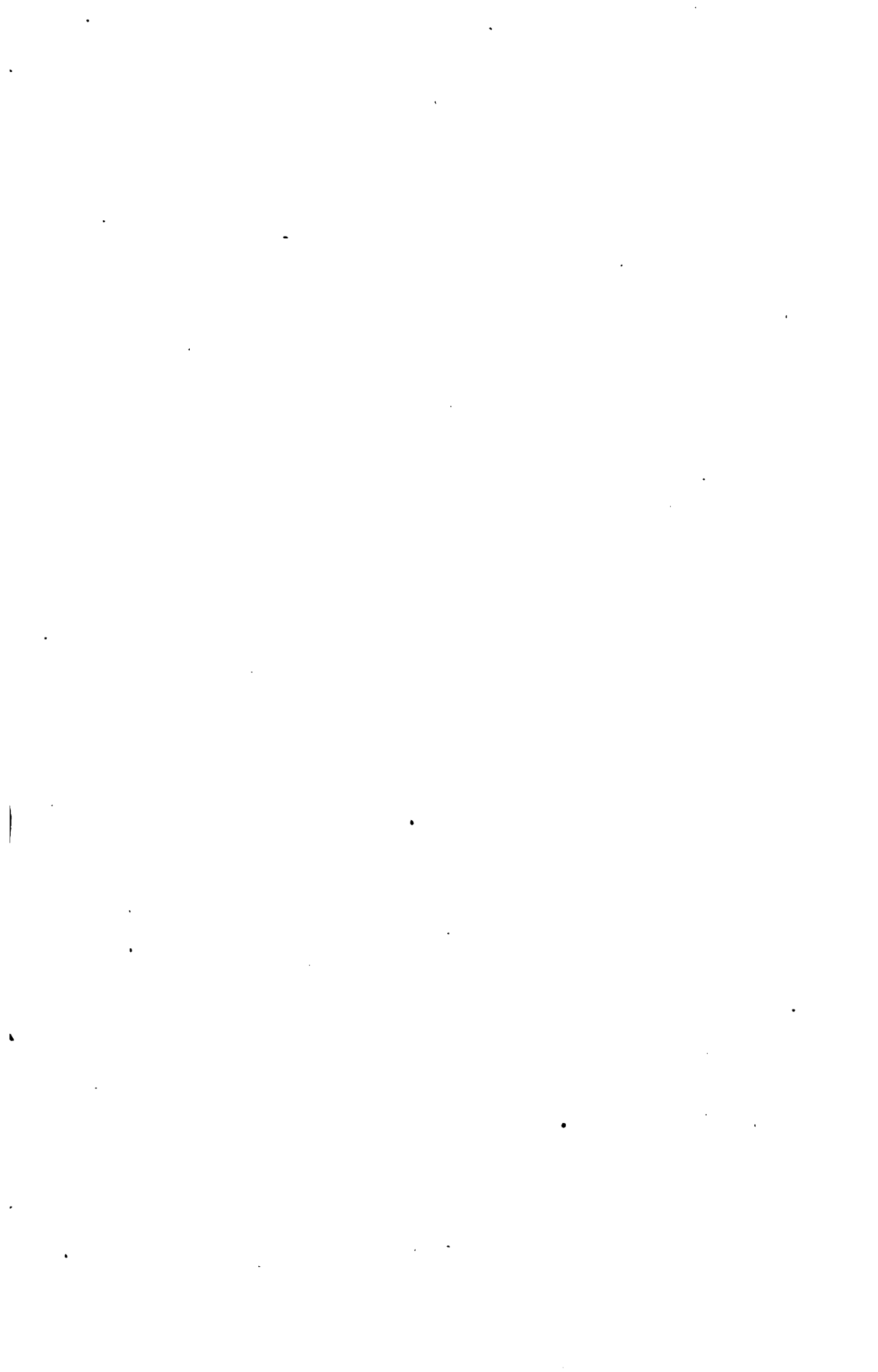
FIG. 8.



J. Coleman Hart, Archt. del.

L. W. Gurney & Co. R.T.

Analysis.



Decorated.

DESIGN III.

PLATE I



J. Coleman Hart Arch^t del.


Lith. of Saxony & Co. New York

Perspective View
From the North West.

The

Decorated English Style.

"But thou, of temples old or altars new,
Standest alone—with nothing like to thee—
Worthiest of God, the holy and the true."



N English architecture the Decorated style is the third, and in Gothic it is the second. It extended over a period of time not much more than half that of the Early English, or about seventy years, commencing in the reign of Edward II., or the early part of the fourteenth century, and continuing through the greater part of the reign of Edward III.

The Early English style boasts of its great number of ecclesiastical edifices of simple and unostentatious grandeur. The Decorated, though greatly inferior to its predecessor in the number of its edifices, has no equal in magnificent erections or gorgeous display.

Among the numerous parish churches of the Early English style there has probably not been found one specimen complete—not robbed of its original parts, or free from additions made in conformity to styles growing subsequently into favor. Not so with the churches of the Decorated period. Many still survive, as examples of its purity and beauty, though fallen now into a dilapidated state; but it is pleasing to know that where profanity and pillage joined hand in hand in ravaging so many of the noblest creations of genius, there a reverent and earnest zeal for the restoration and preservation of ancient edifices has succeeded. The English archæologist had come to their rescue, and shamed the once sacrilegious people into praiseworthy deeds and a more devout and decent reverence for the houses of God.

The Early English, as a new creation, needed to pass through a longer period in reaching its maturity. The Decorated grew out of the Early English; and we owe to it all that is perfect and beautiful in Gothic architecture. When we consider the multitude of previous inventions on which it is founded, and the masterly conceptions of earlier centuries, wherein we note the complete overthrow of the round arch; then, the short space of time assigned the growth of the Decorated to its maturity seems less remarkable when compared with the progress of the other styles to their perfection.

This may be called the *Central* period, “in which Gothic architecture * * * attained the highest point of graceful proportion and luxuriant beauty.” The previous styles are but transitions, and those following it are mere contortions of a struggling degeneracy.

Sculpture, encouraged by the use of carved effigies in niches

and on monuments, and painting, employed in staining figures upon the window glass, were added, as handmaid arts ministering to architecture, distinguished by the same signs of progress towards excellence. And to the sympathetic workings of these arts during this age, must be attributed the magnificent effect of the flowing window tracery, resplendent with the richest colors, and the great beauty of monumental erections, incomplete without their sculptured effigies; and both, blending harmoniously with the sublime architecture of the Gothic interiors and exteriors, produced in a church a superb combination, a worthy symbol of its holy purposes, and a rich oblation to the glory and honor of God.

Doorways.

The double doorway had been but sparingly used in the churches of the last style. It possesses such exquisite features that, in the rapid progress of architecture at this period, one would suppose it should have been better appreciated and oftener employed in the Decorated style than it was. However, it was not altogether abandoned, but as in the former style, seldom used except in large buildings.

Decorated doorways were greatly increased in size when compared with the single ones of the Early English style, and though without the centre shaft, are nearly as large as the double doorway heretofore described.

Their marked characteristics are the ogee drip-stone, independent of the arch below, either crocketed or terminated with a finial or plain, and the angular arrangement of the drip-stone over the doorways;* and with the intermediate spaces in both examples relieved in various ways.

* The modern nomenclature of this arrangement is "Gabled Doorway." It is one of the misnomers so common in architecture, and in this instance seems particularly

Another feature is, that the shafts are not detached and cut separately, as in the last style, but worked in with the moldings and cut upon the jamb stones, having much the same appearance of lightness, but with the addition of greater security.

The arch moldings are more numerous than those of the Early English doorways. The moldings of the arch falling on the shafts are cut on the rectangular planes, and those that are continuous are cut on the chamfer plane. In some small doorways the moldings are continuous, either carried down to the ground, or cut by splays, or intercepted by base moldings. In some examples the arch moldings have feathered tracery, hanging quite free from the inner ones, which produces a rich effect.

The doorways are seldom without the drip-stone, terminated with its head, or other ornament: it is not so often continued on the walls and around buttresses as formerly.

The capitals of the shafts, when plain, have two or three sets of moldings, with the bell, and molded astragal at the neck; when with foliage, the capital differs from the Early English in being more compact, less relieved and without the stems of the leaves on the neck.

The base moldings are plain and simple, a reversed ogee, or other peculiar form, single or repeated.

The moldings of the doorways are less complex; in some instances not so good as those of the last style, and less relieved or undercut.

inappropriate as a general name, when there is often no semblance of a roof or any approximation to it. The *ogee drip-stone*, could with the same propriety, be designated "gabled," for there are ogee gables, as well as angular gables. But the term "gabled" cannot be properly applied to that which has no roof.

When enrichment is introduced, it consists of the peculiar ball-flower, placed at intervals in the hollow moldings; and also the ball-flower and four-leaved flowers combined with stalks and leaves.

It is not unusual to find several hollows in a single doorway filled with these enrichments.

The door is either simply paneled, or ornamented with the exterior iron hinge and its scroll work, but the latter is less frequent than in the previous style.

Windows.

The transition from the Early English style was accomplished in a comparatively short space of time, yet so gradually, and with such an easy flow of one form into another, as fairly to establish a new and peculiar style before the old one was quite dismissed.

For instance, in the doublet window, or where two single openings are placed side by side, and the intermediate space between their arches and the single arched drip-stone is pierced by an oval, the Early English style is recognized. We trace the transition from this form to the Decorated in a slight reduction of the center pier, more acutely pointed openings extending further upward, and the oval lost in the intersection of their lines, producing a lozenge-shaped perforation, all encompassed as before with a drip-stone.

Then, again, there is a more definite change in the introduction of the mullion, arising out of the reduced pier, the circle in the place of the former oval and lozenge, with the intermediate spaces smaller and conforming to the size of the mullion with their soffit cusping; a change which shows the

development of geometrical tracery or the Decorated window at the beginning of the style.

There are numerous examples of two-light windows of this construction, varied in design, although windows of the greatest width and number of lights are not foreign to parish churches of this period.

The tracery of the windows may be divided into two classes; the *geometrical* and the *flowing*; the former consists of geometrical forms, such as the circle, the lozenge, trefoil, quatrefoil et cetera; the latter, of the same forms harmoniously and gracefully blended in the same design by the assistance of flowing lines. Geometrical tracery is the oldest, though not so much confined to any definite period as to admit of a regular classification, since it continued to be used, after the introduction of flowing tracery.

During the progress of this style, there was seen a great and beautiful change in the deepening of the exterior window jamb. Where the jamb moldings were formerly simple, and the glass but slightly recessed, several planes of moldings or splays in the jambs and mullions were now substituted, the chief of these pervading the entire design, with others subservient. In some instances the exterior or principal moldings have capitals and bases, giving them the appearance of shafts; and, in others, the shaft is more developed, with the arch or tracery moldings falling upon its capital.

The mullions, tracery and jambs are sometimes enriched with the ball-flower placed at intervals, with good effect.

The drip-stones of the windows are similar to those of the doors.

The arches of the windows are most commonly equilateral, though there are examples with both the lancet and drop arch: the square-headed window is sometimes used, as well as the segmental.

Clear-story windows of this style, where confined to parish churches, are very small, and with but few peculiarities. The most common forms are the circle, the spherical triangle and the square, rarely filled with elaborate tracery, but most frequently simply trefoiled or quatrefoiled. The interior is generally of a different form from the exterior, oftenest that of the square with its head arched and its jambs widely splayed.

Piers and Arches.

The plan of the Decorated pier is quite simple. Its shafts are engaged, and cut out of the same material with the other members of the pier; and in this respect and also in the squareness of its general outline, lies its principal difference from the Early English pier.

The octagonal pier, of more delicate proportion than the same pier of the last style, is sometimes used, with either plain or ornamented capitals. Another simple and peculiar plan is that in which the shafts are four semi-circles attached to the sides of a square, with their circumferences touching at its angles.

These several varieties do not appear to have been so common during the latter years of the style as the pier of

four shafts, about two fifths engaged, and, between them, a fillet and a deep hollow half as large as the shafts.

Although the filleted shaft was first used by the Early English architects, it may be classed as a characteristic feature of this style.

The capitals are either plain, with single or double sets of moldings, and the bell and astragal; or they are enriched with the foliage peculiar to the Decorated style.

The bases are most generally simple and with but few moldings.

The plain chamfered arch was in common use with the octagonal pier, and, in many instances, in churches that were otherwise highly embellished. The ogee form was sometimes employed in the nave arches.

Buttresses.

The buttress, with its arrangements of set-offs, gables and pinnacles, is a distinguishing feature in the several styles of Gothic architecture; and it is not a less important feature in construction.

Decorated buttresses are usually divided into stages, and with less difference between the projection and the width than in either of the other styles.

Their set-offs are either plain or relieved by the gablet sometimes trefoiled. In some instances the set-offs are quite diminutive, and occasionally a mere drip-stone is used that but slightly marks the difference of projection in the stages.

The gabled buttress was more frequently used in this style.

than in any other, and it was not unusual to adorn the face of the upper stage with a molded panel or a trefoil-headed niche.

Its terminations are various; they are either below the parapet, or carried up to its highest member, or they pass through it and finish in a gable or pinnacle.

The base table is often without any moldings, consisting simply of one or more plain slopes or set-offs. That most common is the reversed ogee molding and two plain faces below with a slope between them. Sometimes either of these base tablets is continued on the wall; there are however instances where both the wall and buttress are without any base, and also where that of the buttress is not continued on the wall.

Moldings.

In the early part of this style, rounds and hollows, with the several varieties of the filleted bowtel, were used, resembling in many respects those of the last style, but differing from them in the common use of fillets between the larger members, and having less depth of hollows that are arcs of decided circles.

As the style advanced, many of the most marked features of the moldings just noticed, were abandoned. The filleted bowtel gradually merged into the perfect wave mold, peculiar to this style. Sunken splays or chamfers were frequently introduced; and the scroll molding formed of two segments of a circle of unequal size, is a characteristic of this style.

At a later period the ogee molding became quite common,

and led to the formation of the double-ogee molding so much used in the Perpendicular style.

All the combinations were made with much more geometrical precision than in the former style, but their arrangements were more easy and graceful, arising from the use in Decorated arches of the chamfer plane in connection with the rectangular planes of Early English arches.

The enrichments are numerous; those most frequently met with are leaves, the square-flower and the ball-flower, either separately or in connected patterns with vines between them.

The ball-flower, so called from its resemblance to a ball inclosed by three or four petals, is peculiar to this style, and was often introduced with fine effect. Heads, shields and other ornaments were sometimes used.

Roofs.

There is little perceptible difference between the roofs of the earlier years of this style and those of the style immediately preceding it. The truss-rafter-roof still continued to be in use, though there was a preference given to that of seven cants. The latter is often boarded on the underside of the timbers, below the lowest collar beam, and divided into panels by rib moldings that are ornamented with carved wooden bosses or flowers, at their intersections; with this construction the cants were more equally divided than when left open or unceiled.

All that is necessary to be said concerning the inclinations of the wooden roofs of this period may be found by reference

to the remark on this topic in the corresponding chapter treating of the Early English period.

As the Decorated style advanced, circular or carved braces were substituted for the angular or diagonal ones. Sometimes they were carried down on the walls, terminating in carved corbels of figures or other devices, adding both greater strength and beauty to the roof.

Occasionally the octagonal king post with molded base and capital was again employed, throwing, from its new position, a portion of the weight of the roof upon the collar beam, instead of upon the tie beam as formerly.

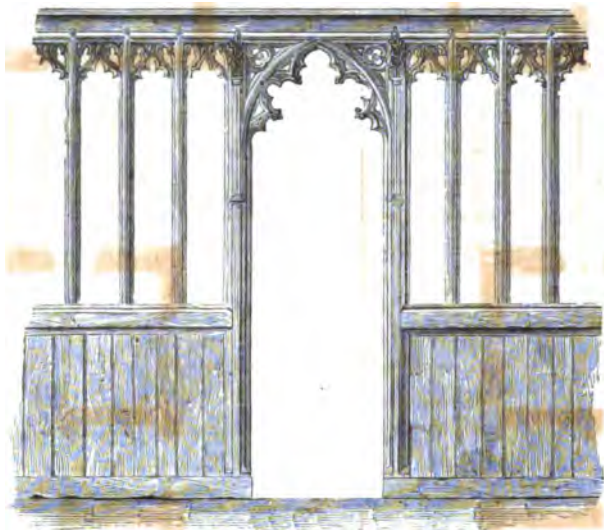
In ancient Gothic roofs, the manner of using the tie beam differed in principle from its modern mode of use. The tie beam was used both to assist in stiffening and to hold in their proper positions the exterior walls, and at the same time it received the weight of the roof vertically.

To gain additional strength, the tie beam was cambered, and there are some Decorated examples where the tie beam answers for rafters as well,—having been hewn out of one large piece of timber, with curved braces continuing from the camber of the beam and distributing part of its load on the walls.

The low tie beam roof was frequently used towards the latter part of this period.

Decorated roofs are various and of great beauty; some being truly beautiful in their unadorned simplicity, while others are skilfully embellished to relieve what would appear nude if destitute of ornament.

Enrichments of various kinds peculiar to the style were carved upon the timbers, and it was during the Decorated period that the Gothic architects excelled all others in the beauty of their designs for wood-work and in the excellence of their execution.



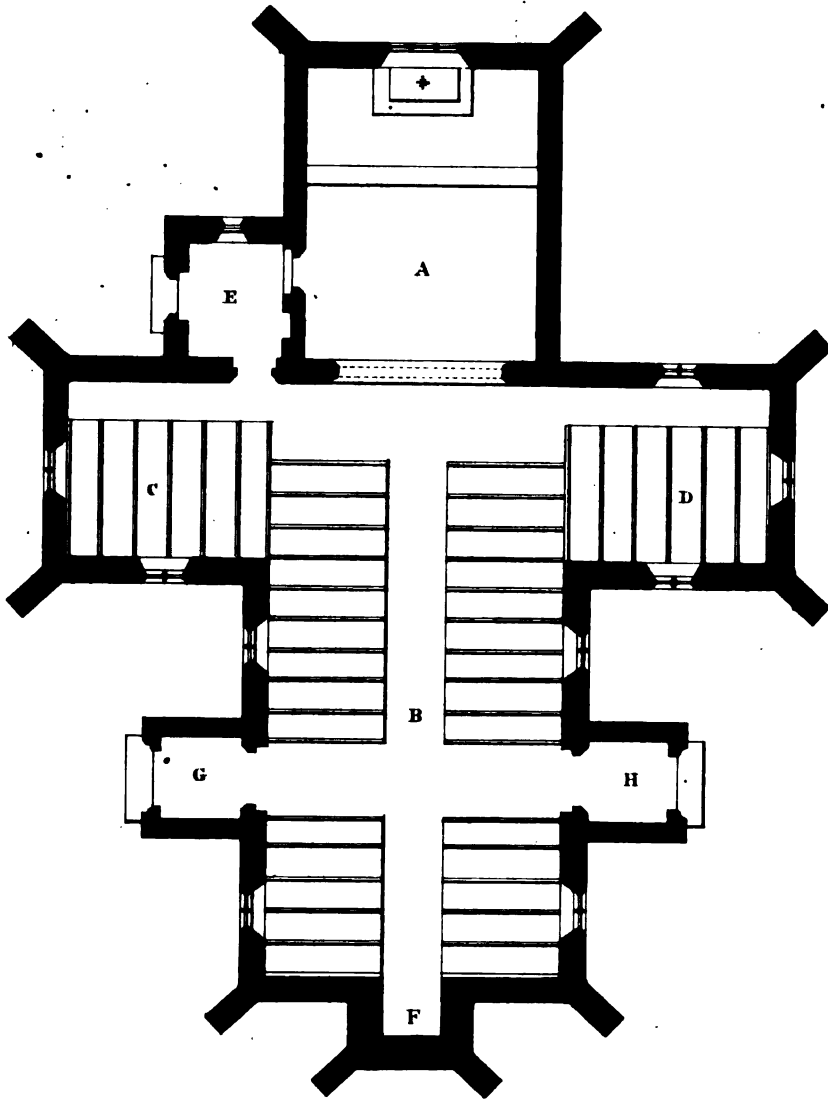
Screen, St. John's, Winchester.*

* Rickman.

Decorated.

DESIGN III.

PLATE II.



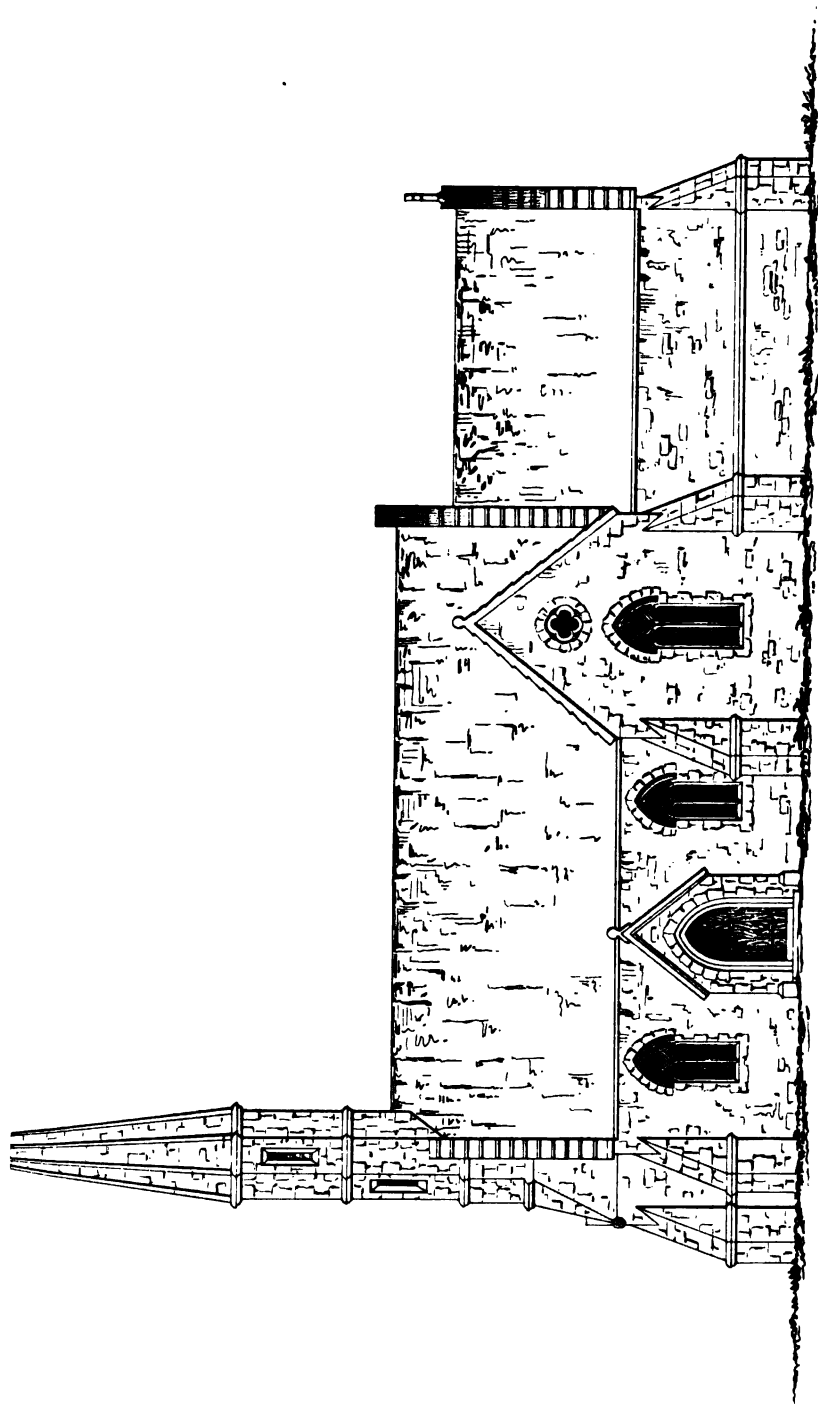
SCALE of 0 5 10 20 30 FEET.

J. Coleman Hart Arch^t del.

Lith. of Searcy & Co. N.Y.

Ground Plan.





South Elevation.

Decorated.

DESIGN III.

PLATE V.



J. Salmon. Paris. 1854.

Lith. of Sonnet & Co. N.Y.

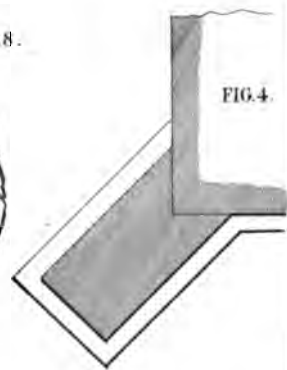
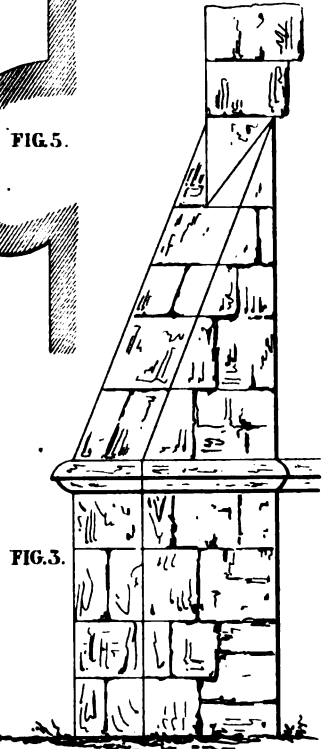
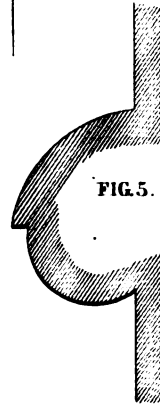
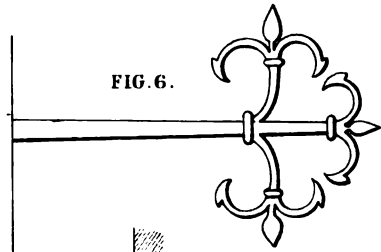
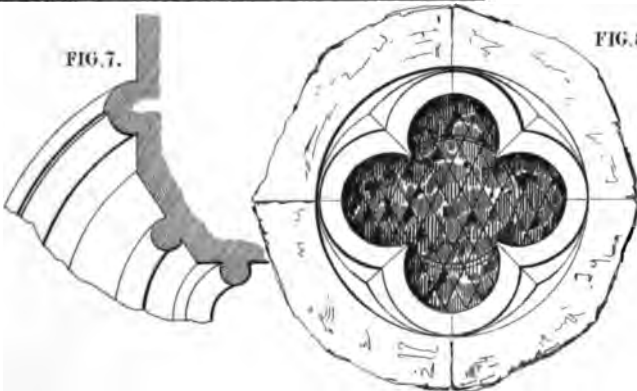
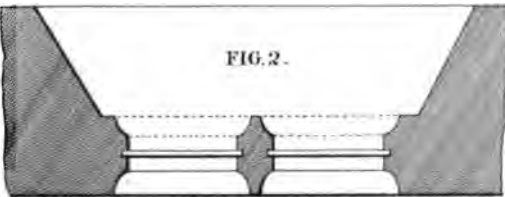
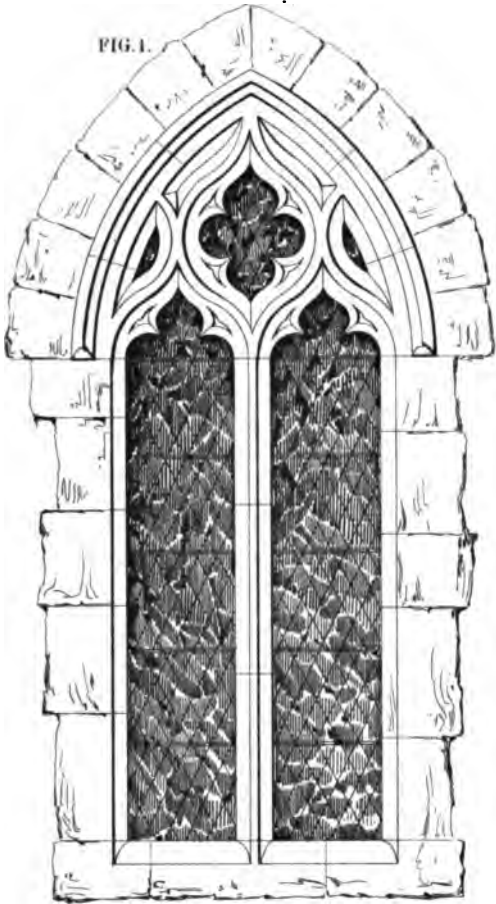
Transverse Section.



Decorated.

DESIGN III.

PLATE VI.



J. Coleman Hart, Arch^d. del.

Leeds, of Searcy & Co. N.Y.

Analysis.





J. C. Newman Hart Arch^t del.

Lith of Sarony & C^o. New York

Perspective View
From the North West.

Description of the Plates.

DESIGN III.

	ft	ft		ft	ft
Chancel,	20	by 25		North Transept, }	15 by 15
Nave,	25	by 50		South Transept, }	
Sacristy,	8	by 10		North Porch, . .	7 by 7
South Porch, 7 by 7.					

Plate I.

Perspective View taken from the North West.

Plate II.

Horizontal Section or Ground Plan.

A. Chancel.	E. Sacristy.
B. Nave.	F. Organ Chapel.
C. North Quasi-Transept.	G. North Porch.
D. South Quasi-Transept.	H. South Porch.

Plate III.

Geometrical View of the West Façade.

Plate IV.

Geometrical View of the South Façade, with the apex of the Spire omitted.
(See West Façade.)

Plate V.

Geometrical View of a Vertical Section of the Design, taken from North to South, looking East.

Plate VI.

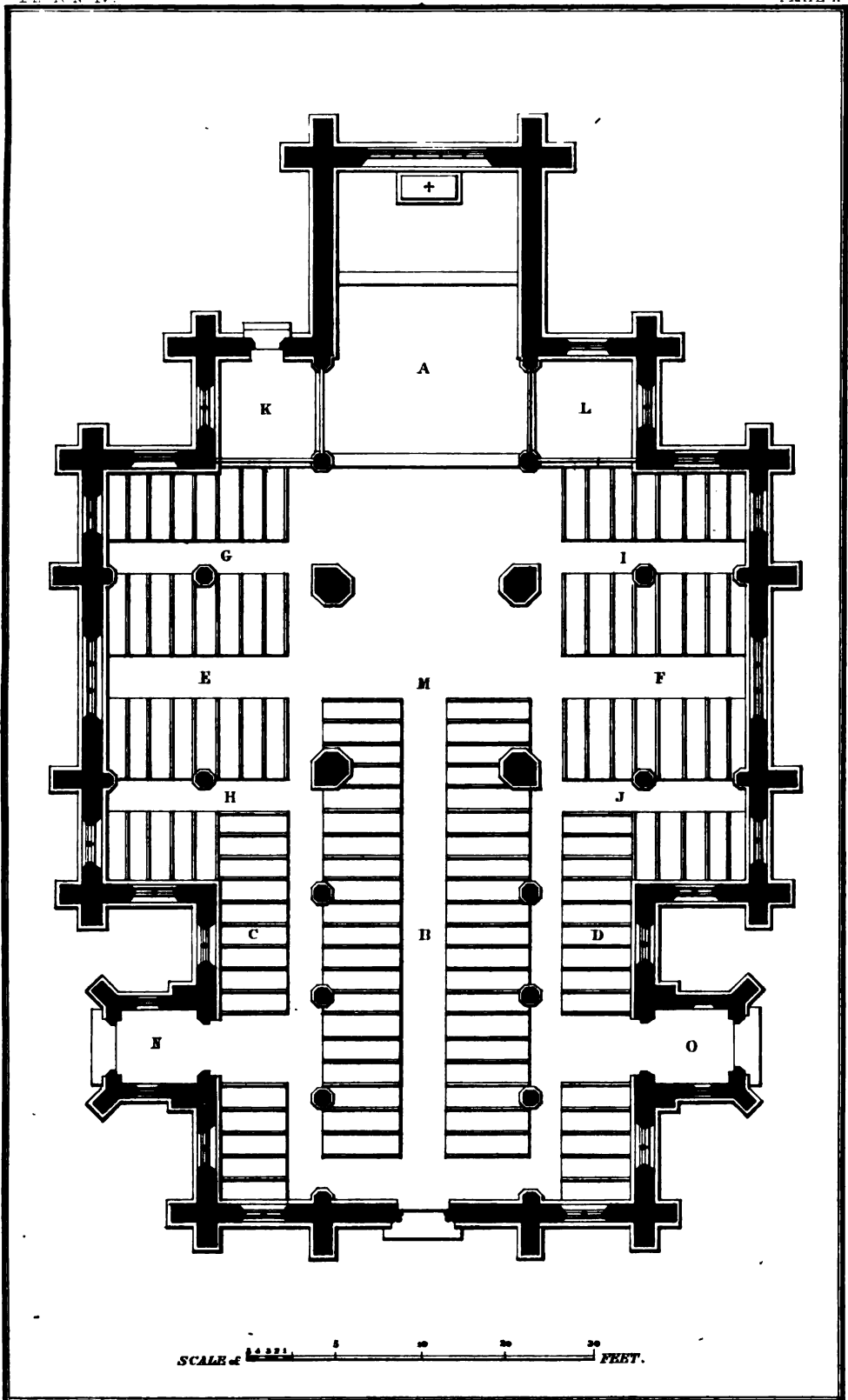
ANALYSIS OF THE DESIGN.

FIG. 1. Geometrical Drawing of one of the Nave Windows. }
 " 2. Horizontal Section of the same. } SCALE 2 ft. = Inch.

Decorated.

DESIGN IV.

PLATE II



J. Solomon Hart. Archt. del.

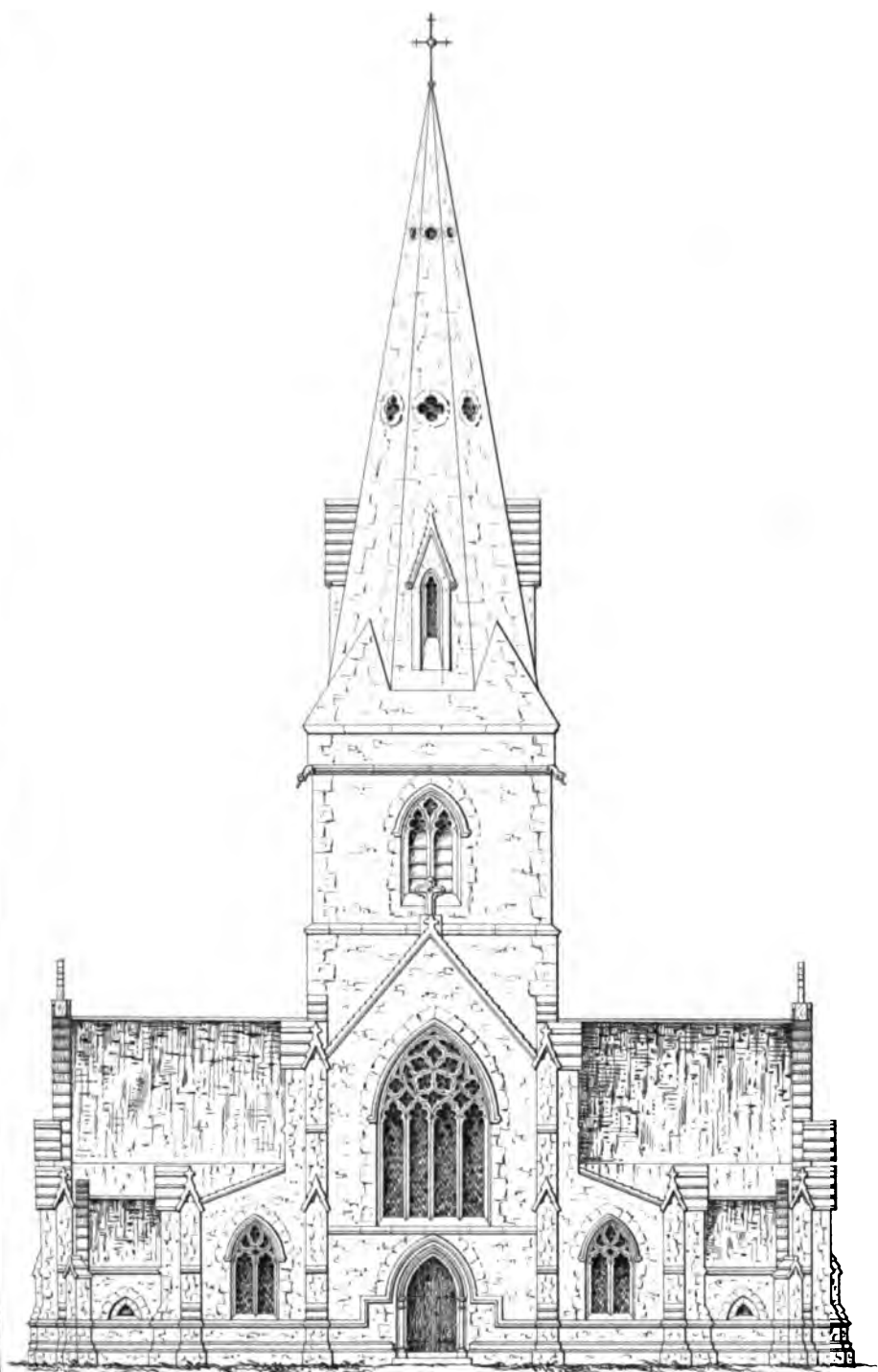
Lith. of Searcy & Co. N.Y.

Ground Plan.

Decorated.

DESIGN IV.

PLATE III



J. C. H. Hart, Arch^t. del.

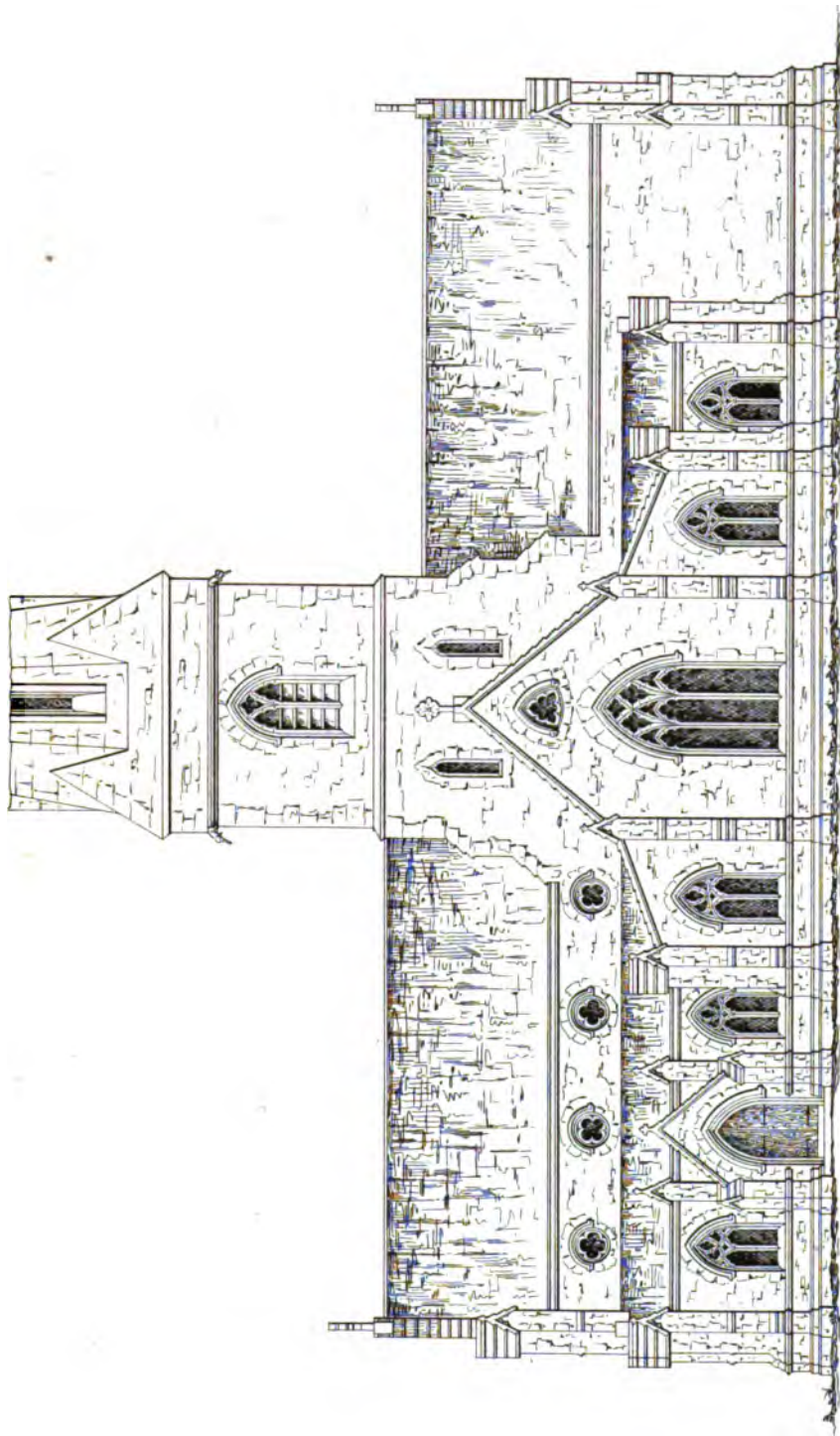
Lith. of Saxony & C^o New York

West Elevation.

Decorated.

DESIGN IV.

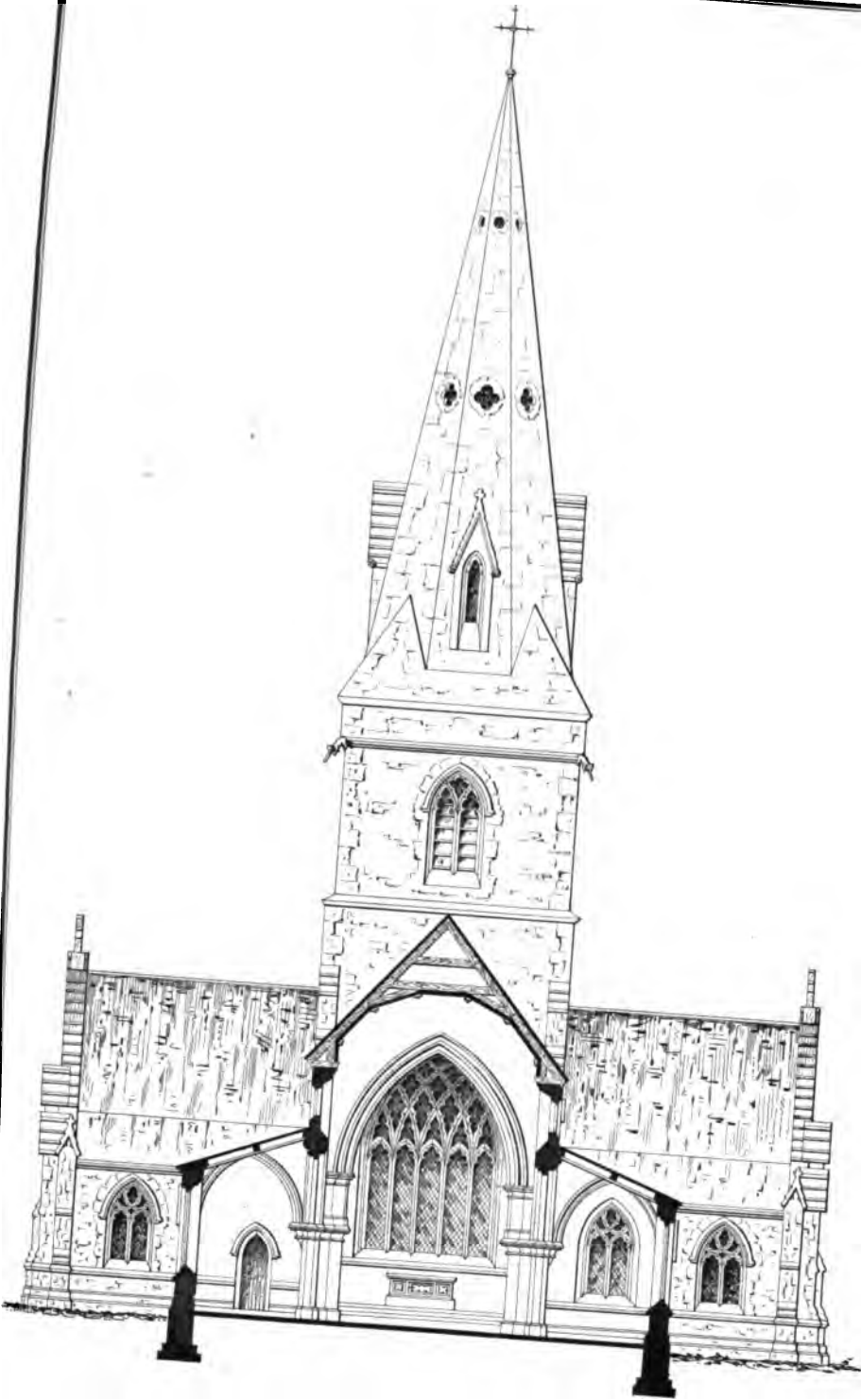
1861.



J. Coleman Hart. Archt. del.

Lith. of Sarony & Co. New York.

South Elevation.



J. Coleman Hart Arch^t del.

Lith. of Sarony & C^o. New York.

Transverse Section.



Longitudinal Section.

Decorated.

DESIGN IV

PLATE VI

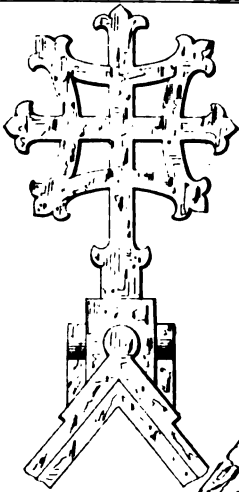


FIG. 3.

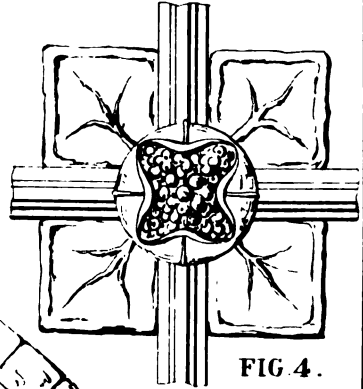


FIG. 4.

FIG. 1.

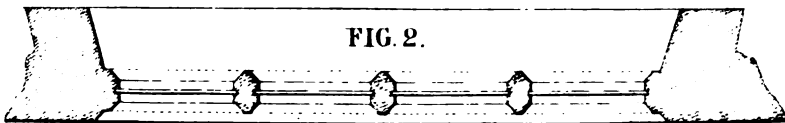
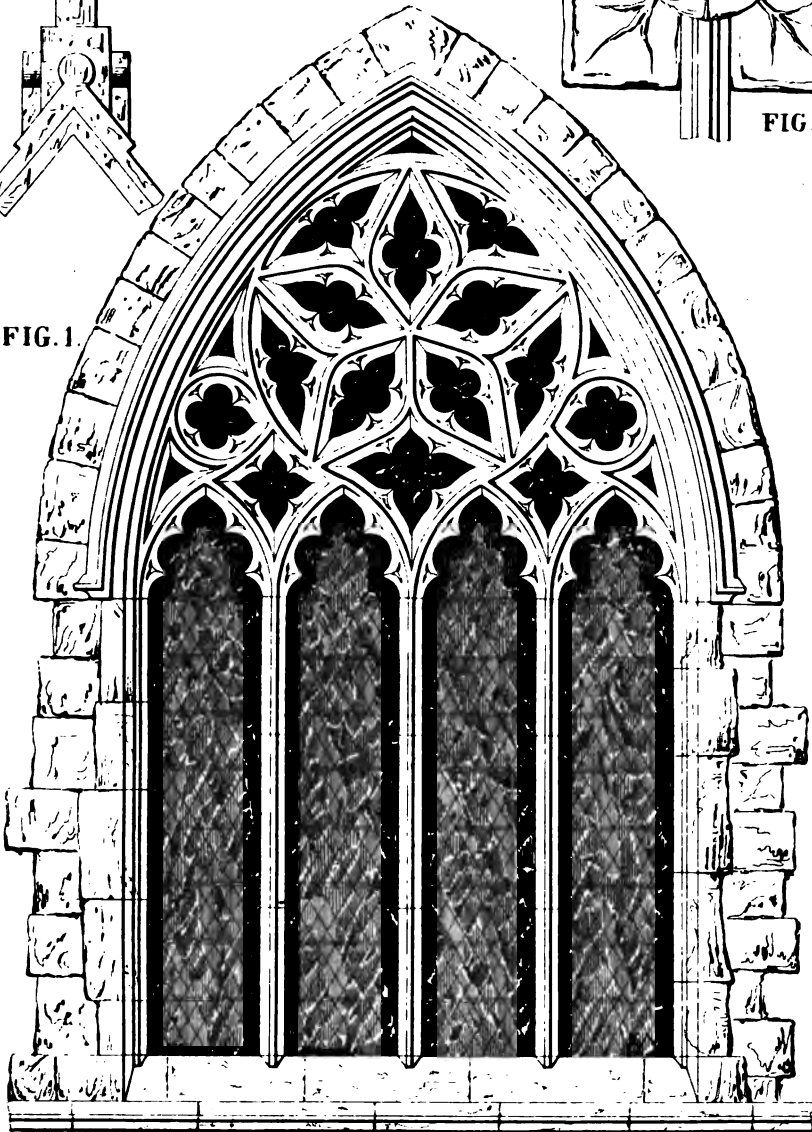
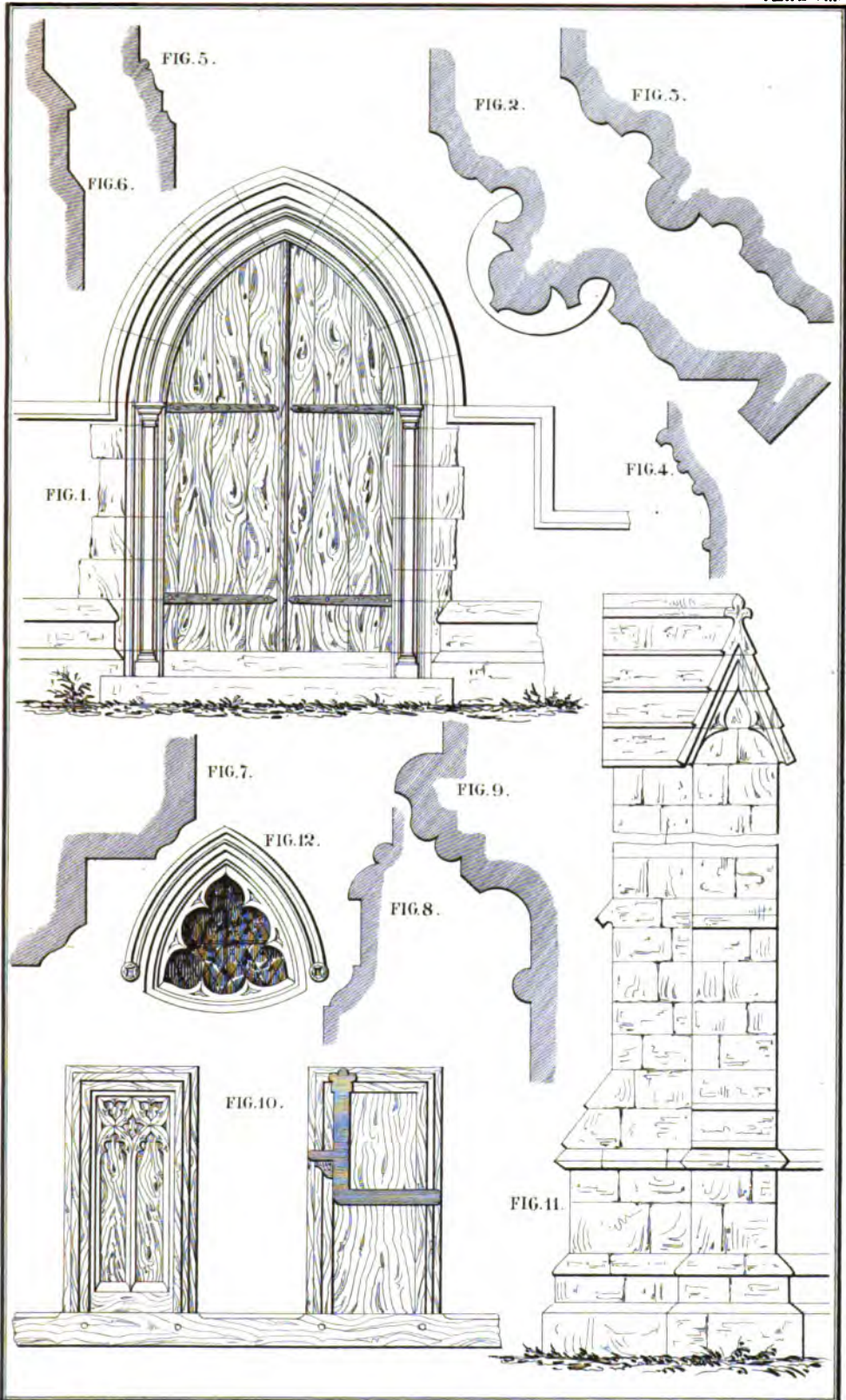


FIG. 2.

Analysis.



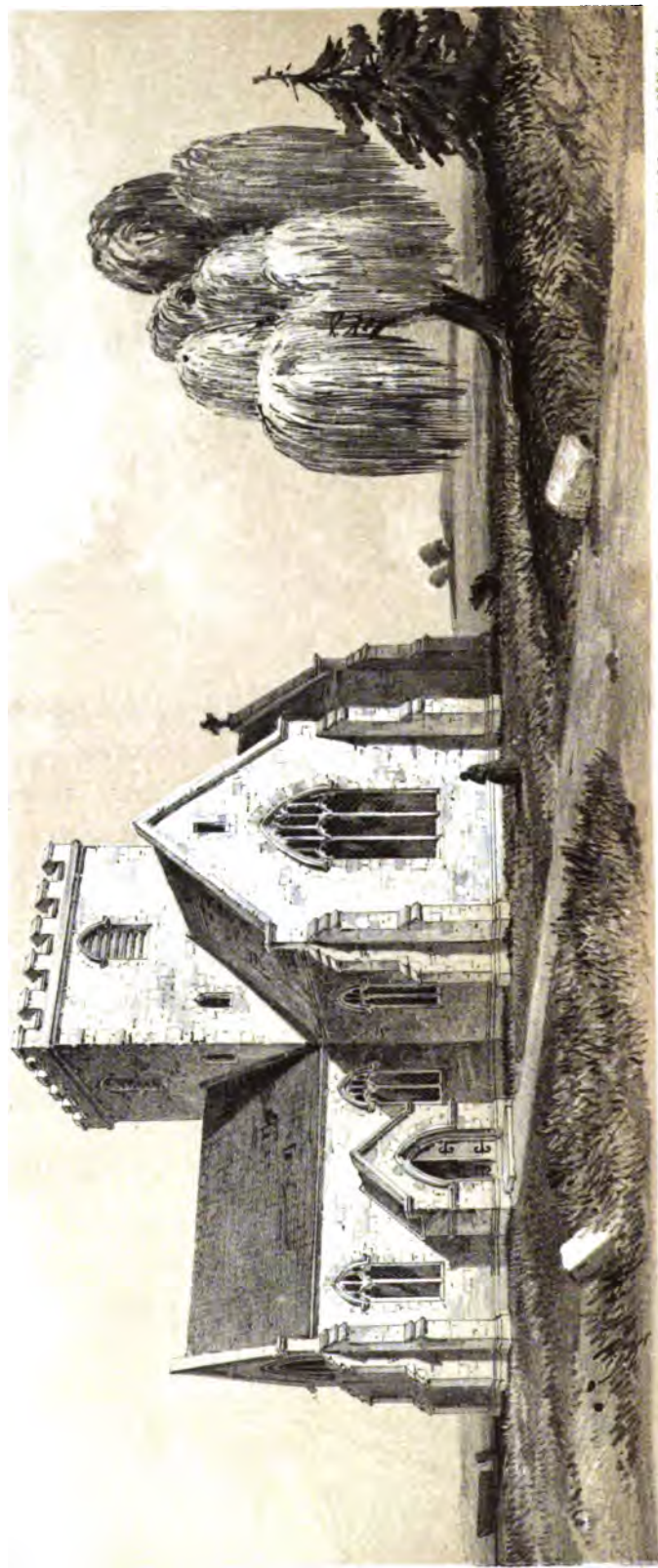
J. Cleaver Hart. Archt. des.

Lith. of Sarony & Co. N.Y.

Perpendicular.

PLATE I.

DESIGN V.

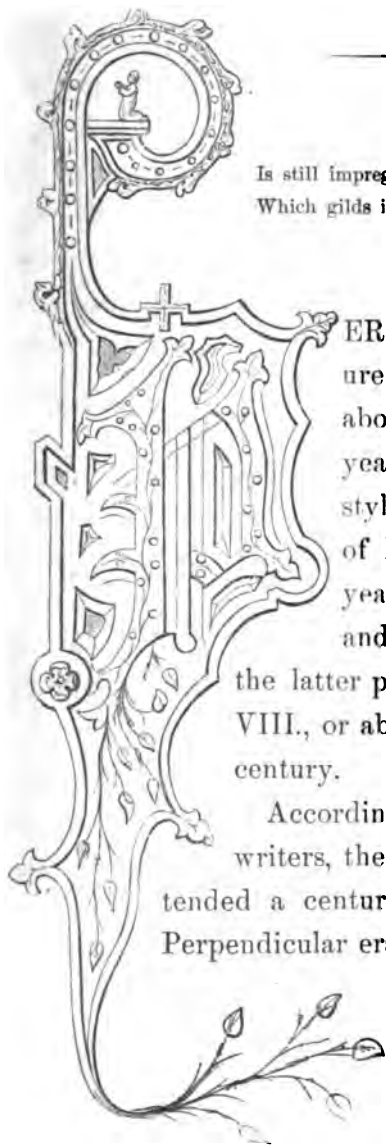


J. Coleman Hart Arch'd.

Perspective View
from the South West

Litho of S. & C. New York

The Perpendicular English Style.



“ ——— thy decay
Is still impregnate with divinity,
Which gilds it with revivifying ray;”

PERPENDICULAR Gothic architecture prevailed through a period of about one hundred and seventy years. It succeeded the Decorated style in the beginning of the reign of King Richard II., or about the year one thousand three hundred and seventy-seven, and continued to the latter part of the reign of King Henry VIII., or about the middle of the sixteenth century.

According to the chronology of some writers, the limit of its career might be extended a century later; but so to prolong the Perpendicular era would be great injustice to the style, which now constitutes a distinct and pure class of Gothic architecture. It possesses its own peculiarities, which are

certainly not without merit. If we include among its monuments and structures the edifices of the succeeding age—a period of total debasement—we subvert the proper order of classification, and render the style as a whole less worthy of study.

Numerous magnificent buildings were erected during the time that has been allotted to the complete development of the Perpendicular style, a majority of which are still in a good state of preservation. The culminating point of its development may be fixed in the reign of the eighth Henry. From this time its course was retrograde, and but few entire edifices in the pure Perpendicular style were erected, most of the works of the age being additions and alterations in old buildings, and these generally meagre and greatly debased.

If the Decorated style be the acknowledged perfection of Gothic architecture, the summit of architectural excellence attained in the middle ages—and such an opinion has long since been received—we cannot expect to find in a transitional style, as the Perpendicular must then be deemed, the purities, beauties and excellences which pertain to but one perfect Gothic style. The Early English is, in the same manner, but a transition. It assisted in the perfecting of another style. It is the incipient state of Gothic art; yet it is not on this account to be depreciated, since it contained in itself the germ which was subsequently expanded and developed into the Decorated style. So with the Perpendicular. Deriving its character from the purest source, its prolonged transition gradually led to a debasement, perhaps not so deplorable as that chaos of art from which the Early English Gothic first issued.

The Perpendicular style may have more modern advocates than the Early English and the Decorated; yet to disparage these styles, for the purpose of exalting the former, can only argue the advocates' ignorance in art. Not more judiciously can the beautiful intricacies of the Perpendicular style be sacrificed to the grand simplicity of the Early English or the graceful combinations of the Decorated. Some of its works, executed even during the period of its most debased state, still remain to

"Shame the weak efforts of art's latest stage."

"As the habit of gazing on peculiar forms, by degrees begets a taste for them, and as those which utility first demands, even when that utility ceases, still are perpetuated by the inclination it produces—as even consistency and taste require the ornamental additions to harmonize in their outline and character with the fundamental groundwork; those essential forms, all slender and tall and sharp; those long thin pillars; those narrow and lofty interstices; those pointed arches, reduplicated laterally and over each other in endless repetitions and intersecting each other in every way, were imitated and repeated and carried to innumerable lesser and more minute subdivisions in the mere ornamental parts, until at last, religious edifices, with their pinnacles, and spires and broaches, and cusps and corbels and tabernacles and tracery and ridge bands, looked like a mass of network, or rather a cluster of mere conductors, * * * * * and after having attained the greatest sharpness, at least, as if weak with old age and sinking, it exhibited a depression in its arches, and even a bulging downwards in the form of pendants, ere it was completely overthrown, and dissolved."*

* Hope's Historical Essay on Architecture.

The overthrow of Gothic architecture in England, or more particularly the Perpendicular, the last of the Gothic styles, concluding a long and brilliant career of art, has been attributed to the introduction, by foreign artists, of the Italian style. This opinion does not seem to be correct, if we minutely examine the component parts of the debased architecture, struggling to uphold itself in its degenerate state at the time of the opportune importation of the foreign style. There was a yearning, an almost perceptible leaning towards a new style, that might have resulted, had its progress been unretarded, in a semblance at least of the Italian style. This tendency is apparent in the introduction, as a principle, of horizontal lines throughout the design—to a degree so frequent, indeed, that, in most instances, they predominated over the vertical lines, but were nevertheless made, by skilful management, to harmonize with them.

It was by thus mingling the horizontal with the vertical, while the former predominated, that the Perpendicular was fully prepared to receive and engraft upon its stock any scion of congenial nature. Hence the Italian was ultimately revived through the mongrel and short-lived transition, called the Elizabethan.

Doorways.

As in all the styles of architecture, notwithstanding there may be sufficient allowance made for a transition from one to another, there will always linger a remnant of some conspicuous form whereon to engraft fresh inventions, and, by a combination entirely original, to create new peculiarities that can be classed as belonging to a particular epoch.

The principle is particularly illustrated in the beginning of

this style. The pointed arched doorway of the Decorated style was still retained, with its accompanying ogee drip-stone, though the latter was arranged, in the design, as subservient to the new inventions of the period. At first, the outer moldings were carried up vertically and at right angles with those running horizontally over the doorway, and thus forming an approximation to right-angled triangles, with the hypotenuse of an ogee form ; the inclosed spaces commonly known as spandrels, were generally ornamented at this transition period, with the circle variously foiled.

This seems to be the incipient state of the square labeled doorway so characteristic of the Perpendicular style. Occasionally the vertical moldings of the label were continued upward to meet the tower drip-stone, in this design, and, at a subsequent period, when the four-centered arch was introduced, the ogee drip-stone was laid aside, and greater prominence was given to an independent, square drip-stone or label. The spandrels thus formed were now filled either with circles, armorial bearings, or rich foliage of great variety of design.

The moldings—generally worked on the chamfer plane, though not with the precision of the last style—are either continuous, finishing on the chamfer ; or those most prominent terminate with bases ; or those of the arch are carried on small shafts. The latter have octagonal capitals that are variously molded—generally with the cyma-recta as the principal—or are sometimes enriched with foliage peculiar to the style ; and octagonal bases, easily recognized by their peculiar stilted character and ogee moldings.

In small doorways, the spandrel and square drip-stone are

sometimes omitted, and the drip-stone is made to conform to the four-centered arch of the doorway.

The doors at this period were ornamented with elegant traceried panels, instead of the iron scroll work common to the previous styles; though perhaps as many are still found quite plain, or without any embellishment, save that of ornamented nail heads.

Windows.

The windows in ancient Gothic structures are the principal criteria by which certain peculiarities of a style are most easily discerned. In the preceding style, the flowing tracery stamps it as Decorated at once; while in the style we are now considering it is not more difficult to arrive at a correct conclusion from the prevalence throughout of tracery of a vertical or perpendicular character.

The super-mullion was still continued, and became by its common use almost a characteristic of this style. It is employed mostly in large windows to define or separate sections or combinations of lights, while the intermediate spaces are subdivided into smaller lights of great variety of form.

The outer member of the principal mullion is more frequently made continuous than divided by a capital; but with this arrangement the peculiar base continues still in use.

The transom was occasionally used by architects towards the latter part of the Decorated period, but was distinguished by much simplicity: and, as the windows of the succeeding

style became enlarged by the addition of a greater number of lights, this useful member seems to have been called into immediate requisition, and it afterwards attained such importance as to constitute a marked characteristic of the Perpendicular style.

As in the doorways, so was the four-centered arch employed in the windows, at the time when the Perpendicular may be said to have reached its zenith. With the introduction of this feature, there appears a revulsion in the arrangement of the window tracery, or at least greater encouragement was given to the construction of the tracery below the spring of the arch, making the arch look as if it were stilted.

Tracery, having the appearance of pierced foliated panels, reduplicated throughout, subsequently pervaded the general design; and in some examples the square drip-stone of the doorways, with its ornamented spandrels, is used in the window.

Other arches besides the pointed and four-centered were used at a late period, generally partaking of a debased character and unworthy of the student's attention.

Clear-stories became in this style one of the principal and most conspicuous features of the nave, and therefore greater improvement is to be remarked in the windows belonging to them.

The square-headed, the pointed, and the four-centered arch were those most frequently used, and sometimes the windows were so closely placed as to reduce the intermediate piers to a less width than that of the openings.

Piers and Arches.

While we find at times in this style many of the forms common to the previous styles, ornamented with purely Perpendicular moldings, it has still its own peculiar forms. There is the lozenge-shaped pier, or the square, placed diamond-wise, and contracted between the arches from east to west, which is distinctive of this style; and so also is the manner of continuing certain moldings of the pier up into the arch without interruption at its spring.

In some examples, the small pier shaft is entirely omitted, and all of the pier moldings are continued in a similar manner up into the arch.

The capitals of the shafts are foliated, or have the moldings peculiar to the style, and the semi-octagonal neck.

The base has the ogee molding, and its plinth is semi-octagonal and very much stilted.

The arches vary from the acute-pointed to the four-centered; the latter may be said to have superseded all others towards the conclusion of the period.

Buttresses.

The most marked change in the buttress consists in the reduction of its width and an increase of its projection. The favorite manner of working it was in two stages—though more were not infrequent—with plain slopes or set-offs generally at a sharp angle, or with very little inclination. These weatherings were often a series of moldings peculiar to the style.

While pinnacles in the Decorated style, were chiefly confined to turrets and to particular parts of a building, they were in this style more fully developed and made common to all parts—as well in the aisles as the clear-story and the chancel.

The crocketed and finial'd gable and the paneled faces of the buttress are also common to this style.

Angular buttresses were often used, but not with the same frequency as in the last style.*

The base sometimes consists of a series of moldings, with their intervening tablets; but that which was most often used, is the shallow ogee with hollows, splays and tablets,

Moldings.

In the combinations of the Early English style it will have been observed that there is an equilibrium prevailing between the moldings and the hollows, or that as great importance is given to the one as to the other. But as we proceed to the Decorated style there is a more consistent combination of moldings and hollows; the former are more in groups and divided by the latter, giving greater character and importance to the primary instead of the secondary parts of combinations of moldings. Again, as we advance still further, in the Perpendicular style this perfect combination seems entirely lost and forgotten, and the hollow predominates, and is expanded to its utmost capacity, the moldings becoming mere appendages, instead of primary forms.

* The angular buttress is not peculiar to any one period of Gothic architecture, but is common to all.

There is no feature of this style that so readily marks its transition or debasement from a purer architecture, as its moldings.

The hollow becomes, as the style advances, a shallow case-ment. The moldings are connected without regard to beauty of effect. The bead and the wave molding of the last style, and the double ogee are, though in common use throughout this style, of little character, because of the shallowness of their segments. The ogee molding, used in all the styles, was very common in this; but, like most of the other Perpendicular moldings, it is ineffective through its want of bold outline and sufficient depth of shadow.

A characteristic, and a growth of this style is the undulating molding, or a combination of the wave and the ogee moldings, somewhat resembling the bowtel of the last style, with its single fillet rounded, though much inferior.

To the open and naked character of the hollow used with the moldings, doubtless may be attributed the great variety and superabundance of enrichment peculiar to this style; it has flowers, fruit, heads, animals, clumps of leaves or flowers, and escutcheons, either single or in running patterns, and generally well executed.

The Tudor flower, a growth of this style, is ordinarily used as a battlement, or placed upon the transoms of windows.

Roofs.

Of roofs of this period I have to note three varieties. They may be classed respectively as the *hammer-beam* roof, the *collar-braced* roof and the *tie-beam* roof. The first of these

may be said to have originated in the early part of this period, though it was not in general use until much later.

Some writers have explained its origin by supposing that the central portion of the tie-beam was sawn out, in an already constructed roof; the abundance of lateral resistance found in the walls and buttresses, kept the roof equally as secure.

To the hammer-beam roof, in its incipient state, vertical wall pieces and curved braces were afterwards added, both above and below, which carried the superincumbent weight to the walls, yielded additional support, and relieved the roof of its former angular outline.

The *collar-braced* roof seems to have grown out of the roof just described; the projection of the hammer-beams grew gradually less and less, the braces which they supported still following them, until, nearly united with the braces below the hammer-beam, their contour appeared a continuation of the principal arched braces carried to the walls. Thus originated the collar-braced roof.

In this construction the hammer-beam was entirely omitted, and the principal arched braces were framed into the vertical pieces placed against the walls.

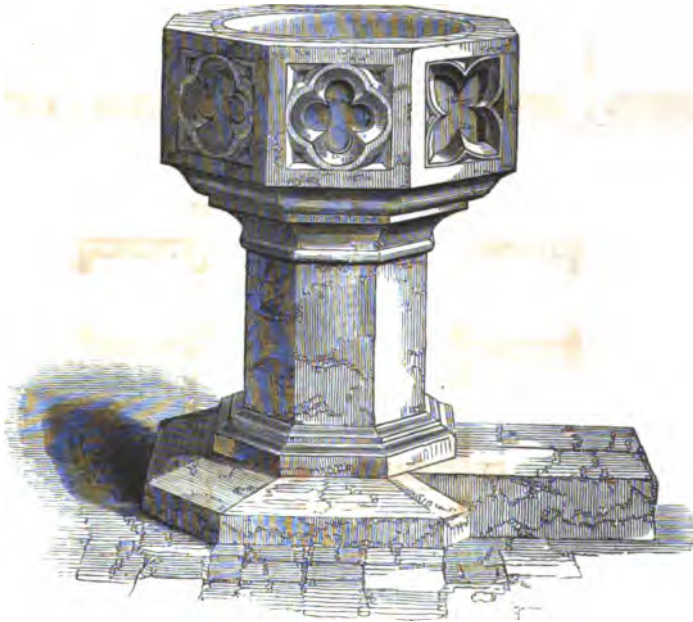
The *tie-beam* roof was most commonly used in the latter part of this period. In some examples the pitch or inclination of the roof is very low—so low, indeed, that often it admits of no framework, but is supported by a tie-beam cambered and constituting a principal.

This defect in the elevation of the interiors of the Perpendicular naves was to some extent obviated by the introduction of braces into the angles formed by the tie-beam and the external walls—the braces being so united with the tie-

beam (or rafter) that the whole appears as one continuous wooden arch.

All of these forms of roof admit of great variety of ornament. Sometimes the rafters are ceiled, and the spaces between the principals are subdivided with panels, with molded ribs, and adorned with tracery. It was not unusual to carve the hammer-beams so as to represent angels, in various attitudes, bearing shields and other appropriate emblems.

Although many roofs of this period are extremely simple and devoid of ornament, the greater part of them abound in embellishments, of pierced traceried panels, niches, figures, and the Tudor and other flowers.



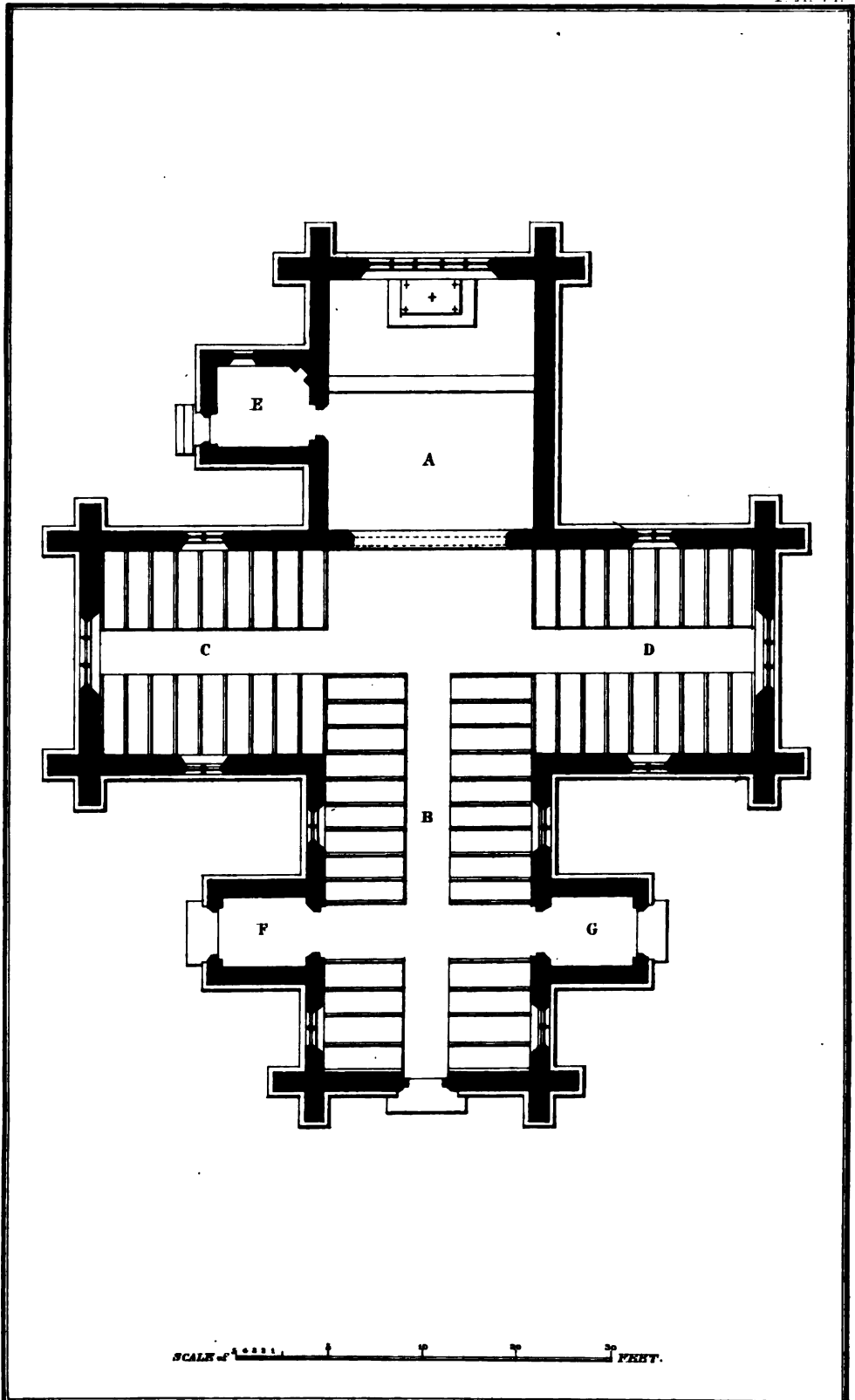
Font, S. Andrew, Histon.*

* Churches of Cambridgeshire.

Perpendicular.

DESIGN V.

PLATE II



J. C. Mansel Pleydell del.

Edw. Pleydell sculp.

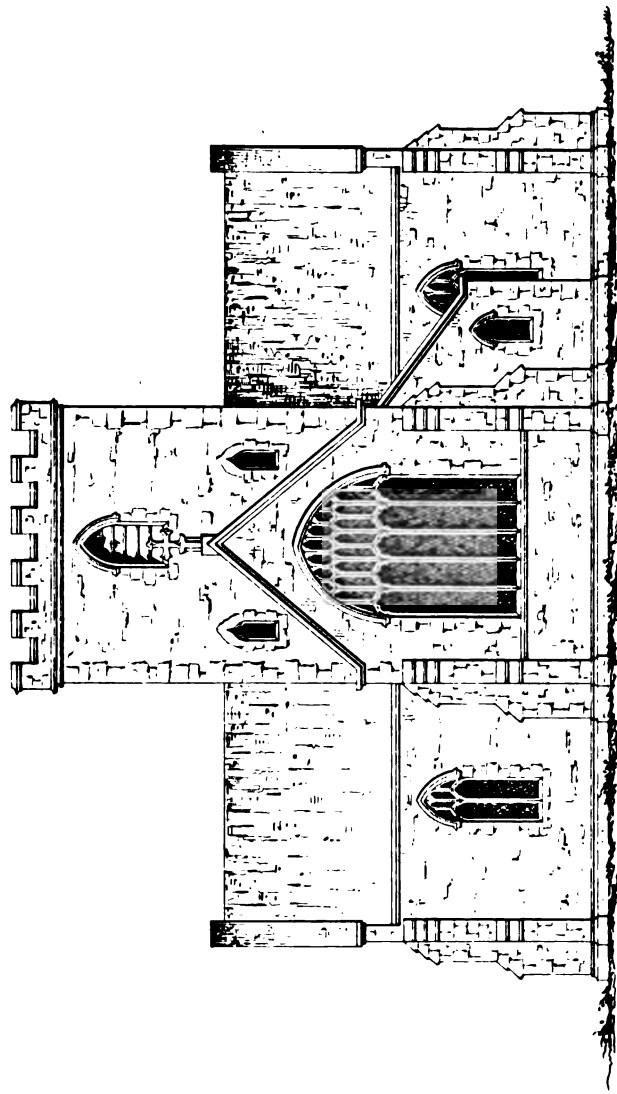
Ground Plan.



Perpendicular.

PLATE II

PLATE III



East Elevation.

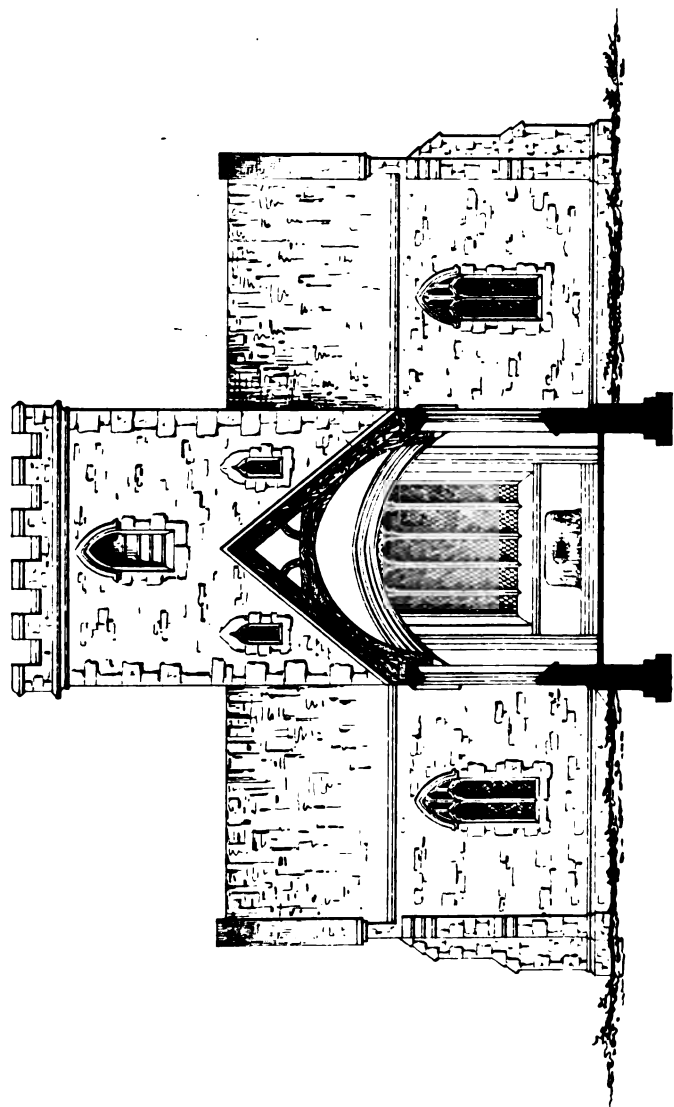
See also the plan.

Little of St. Mary & C. New York.

Perpendicular.

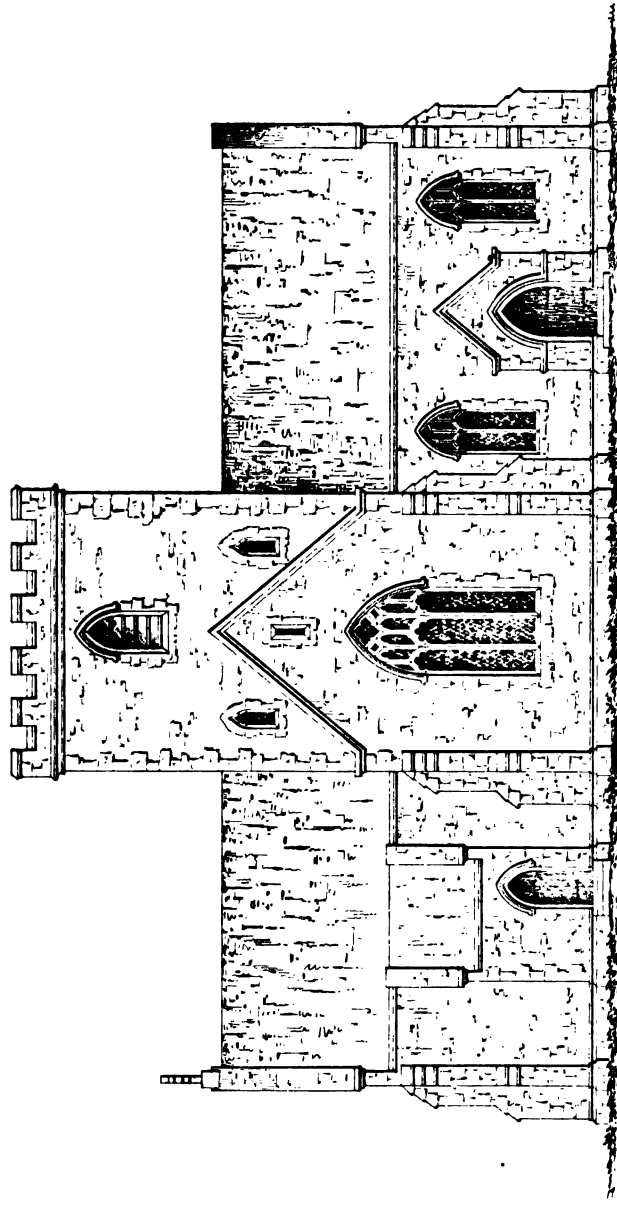
PLATE V.

FIGURE 17.



Transverse Section.

Engraved from a drawing by J. G. Smith.



See also fig. 101, 102.

Lith. of Sonnet & Co. New York.

North Elevation.

Perpendicular.

DESIGN VI.

PLATE 1



J. Coleman Hart Arch^t del

Lith. of Searcy & L^o New York

Perspective View
From the South West

Description of the Plates.

DESIGN V.

Chancel,	$\overset{n}{22}$ by $\overset{n}{27}$		North Transept, }	$\overset{n}{22}$ by $\overset{n}{22}$
Nave,	22 by 55		South Transept, }	
Sacristy,	9 by 10		North Porch, . .	8 by 9
South Porch, 8 by 9.				

Plate I.

Perspective View taken from the South West.

Plate II.

Horizontal Section or Ground Plan.

A. Chancel.		D. South Transept.
B. Nave.		E. Sacristy.
C. North Transept.		F. North Porch.
G. South Porch.		

Plate III.

Geometrical View of the East Façade.

Plate IV.

Geometrical View of a Vertical Section of the Design, taken from North to South, looking East.

Plate V.

Geometrical View of the North Façade.

Plate VI.

ANALYSIS OF THE DESIGN.

FIG. 1. Geometrical Drawing of the North and South Windows of the Transepts.	} 4 ft. = Inch.
" 2. Horizontal Section of a part of the same.	

SCALE

FIG. 3. Section of the Arch and the Drip-Stone Moldings to the North and South Windows of the Transepts—at the Spring of the Arch.	SCALE.
	1 ft. = Inch and half.
" 4. Section of the Tower Arches.	1 ft. = Inch.
" 5. Profile of Set-offs to the Principal Buttresses.	4 ft. = Inch.
" 6. Vertical Section of the Base Molding around the Building.	2 ft. = Inch.
" 7. Geometrical Drawing of the West Door of the Nave.	4 ft. = Inch.
" 8. Horizontal Section of the Jamb Moldings to the same.	1 ft. = Inch.

The *Sittings* are about 330 in number.

DESIGN VI.

	ft.	ft. in.		ft.	ft. in.
Chancel,	22	by 33.6	North Aisle,	11	by 72.6
Nave,	22	by 72.6	South Aisle (including	} 11	by 85
Sacristy,	12	by 20	Organ Chapel), . .		
Tower,	15	by 15	North Porch,	10	by 10
South Porch, 10 by 10.					

Plate I.

Perspective View taken from the South West.

Plate II.

Horizontal Section or Ground Plan.

A. Chancel.	E. South Aisle.
B. Sacristy.	F. Organ Chapel.
C. Nave.	G. Tower.
D. North Aisle.	H. North Porch.
I. South Porch.	

Plate III.

Geometrical View of the West Façade.

Plate IV.

Geometrical View of the South Façade, with the Spire omitted.

Plate V.

Geometrical View of a Vertical Section of the Design, taken from North to South, looking West.

Plate VI.

Geometrical View of a Vertical Section of the Design, taken from East to West, looking North.

Plate VII.

ANALYSIS OF THE DESIGN.

- | | |
|--|-----------------|
| FIG. 1. Geometrical Drawing of the East Window in the Chancel. | } 4 ft. = Inch. |
| " 2. Horizontal Section of the same. | |
| " 3. Section of the Arch, Drip-Stone, and Mullion to the East Window in the Chancel. | 1 ft. = Inch. |
| " 4. Geometrical Drawing of one of the Spandrels to the West Door. | 2 ft. = Inch. |

Plate VIII.

ANALYSIS OF THE DESIGN (continued).

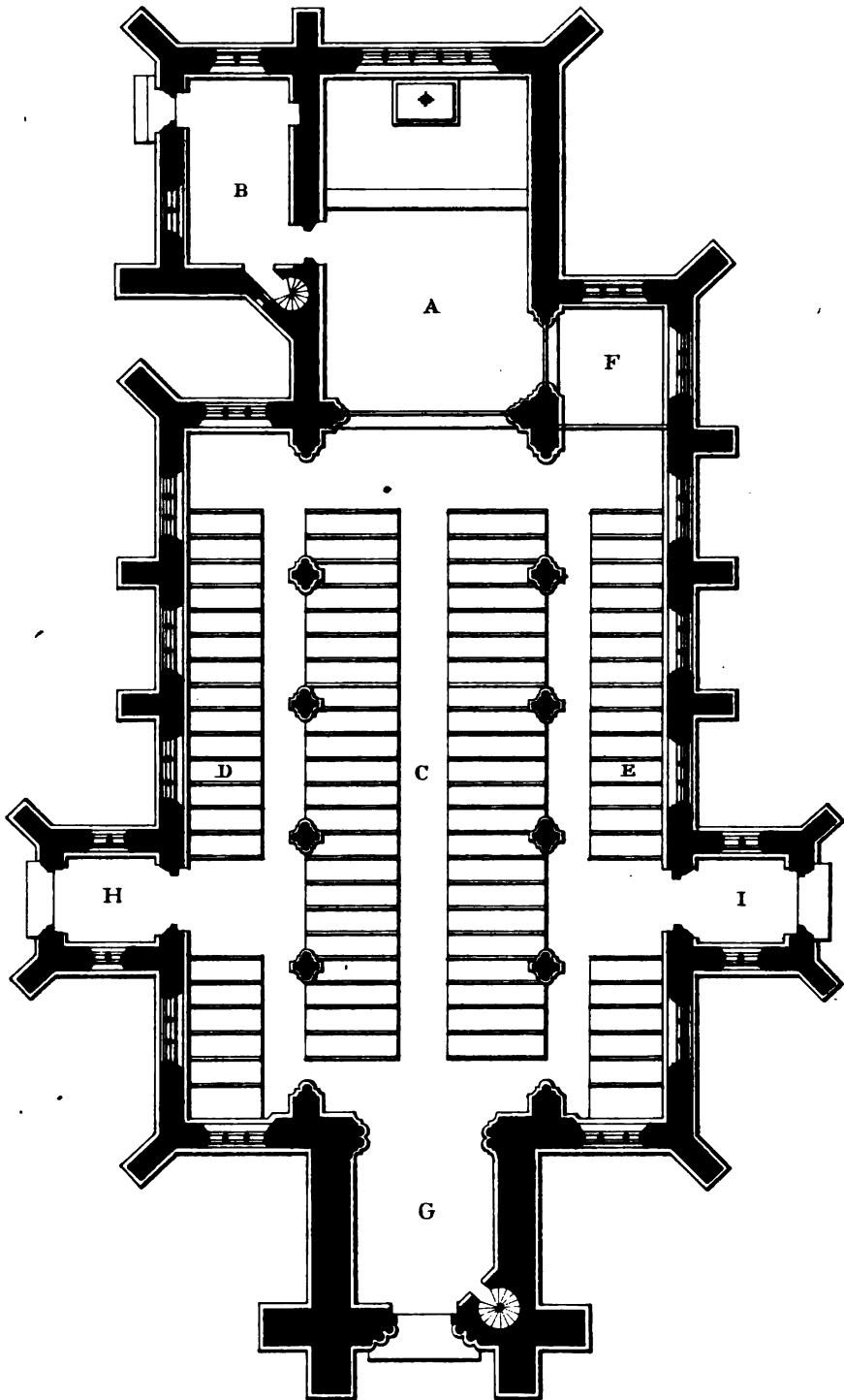
- | | |
|--|------------------------|
| FIG. 1. Geometrical Drawing of the West Door in the Tower. | 4 ft. = Inch. |
| " 2. Horizontal Section of the Shafts and Jamb Moldings to the same. | 1 ft. = Inch. |
| " 3. Vertical Section of the Base Molding to the Shafts of the West Door in the Tower. | 1 ft. = Inch and half. |
| " 4. Vertical Section of the Base Moldings to the Tower—the lower ones of which are continued around the Building. | 1 ft. = Inch. |
| " 5. Geometrical Drawing of one of the Nave Piers, with a part of one of the Nave Arches. | 4 ft. = Inch. |
| " 6. Horizontal Section—half of one of the Nave Piers at the Base and at the Capital. | 2 ft. = Inch. |
| " 7. Vertical Sections of the Capital and the Base to the Nave Piers. | 1 ft. = Inch. |
| " 8. Vertical Section of the Parapet to the Aisles, with a Profile of one of the Gargoyles. | 2 ft. = Inch. |
| " 9. Geometrical Drawing of the Set-offs to the Tower Buttresses. | 4 ft. = Inch. |

The **Sittings** are about 510 in number.

Perpendicular.

DESIGN VI.

PLATE II.

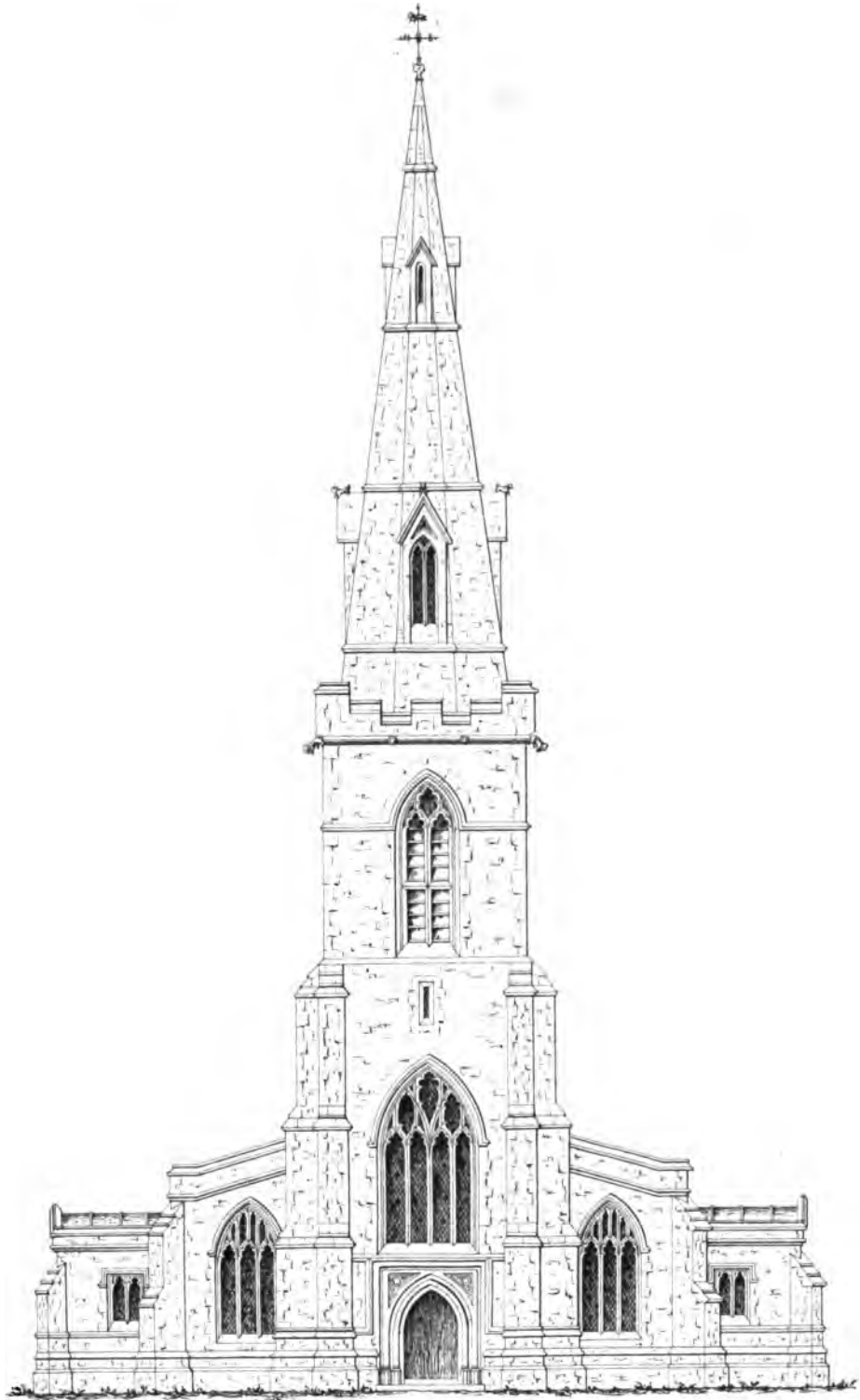


SCALE of FEET. 0 10 20 30 40

J. Coleman Hart, Arch^t del.

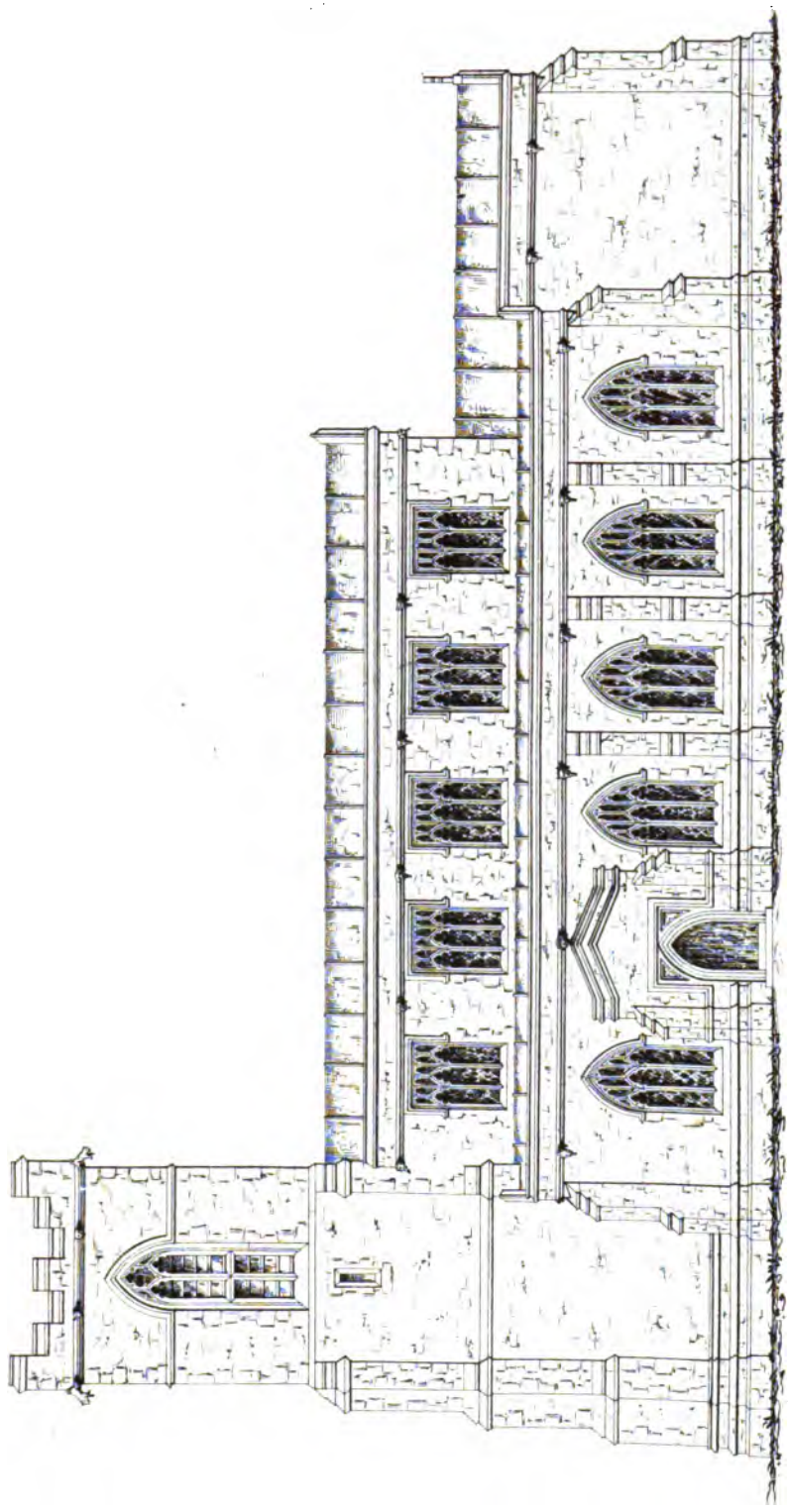
Litho of Savory & Co. N.Y.

Ground Plan.



See also page 100.

West Elevation.



South Elevation.

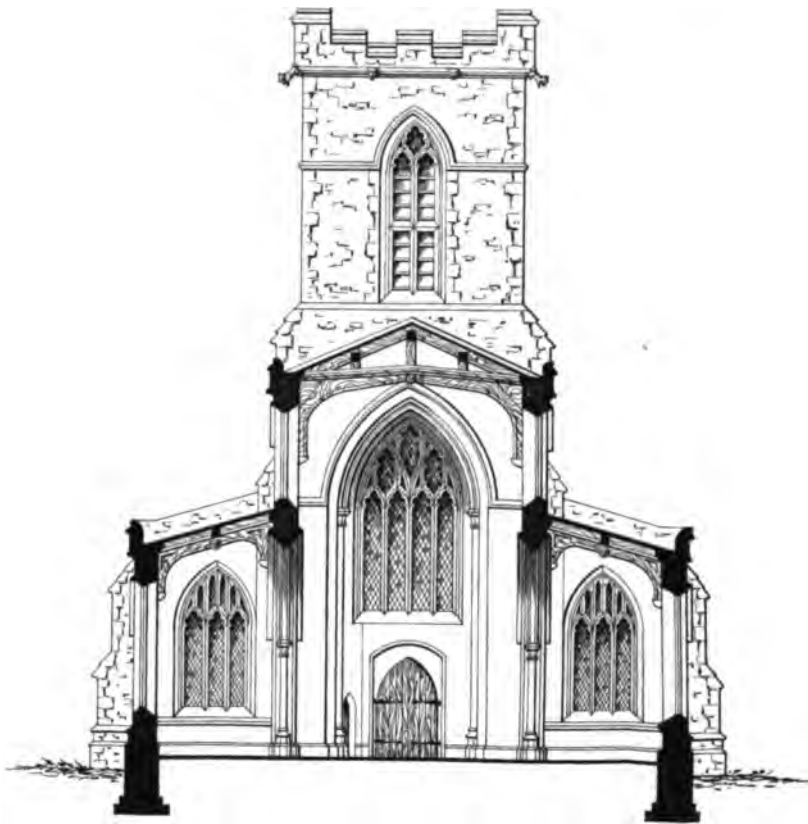
Wm. H. St. John



Perpendicular.

DESIGN VI.

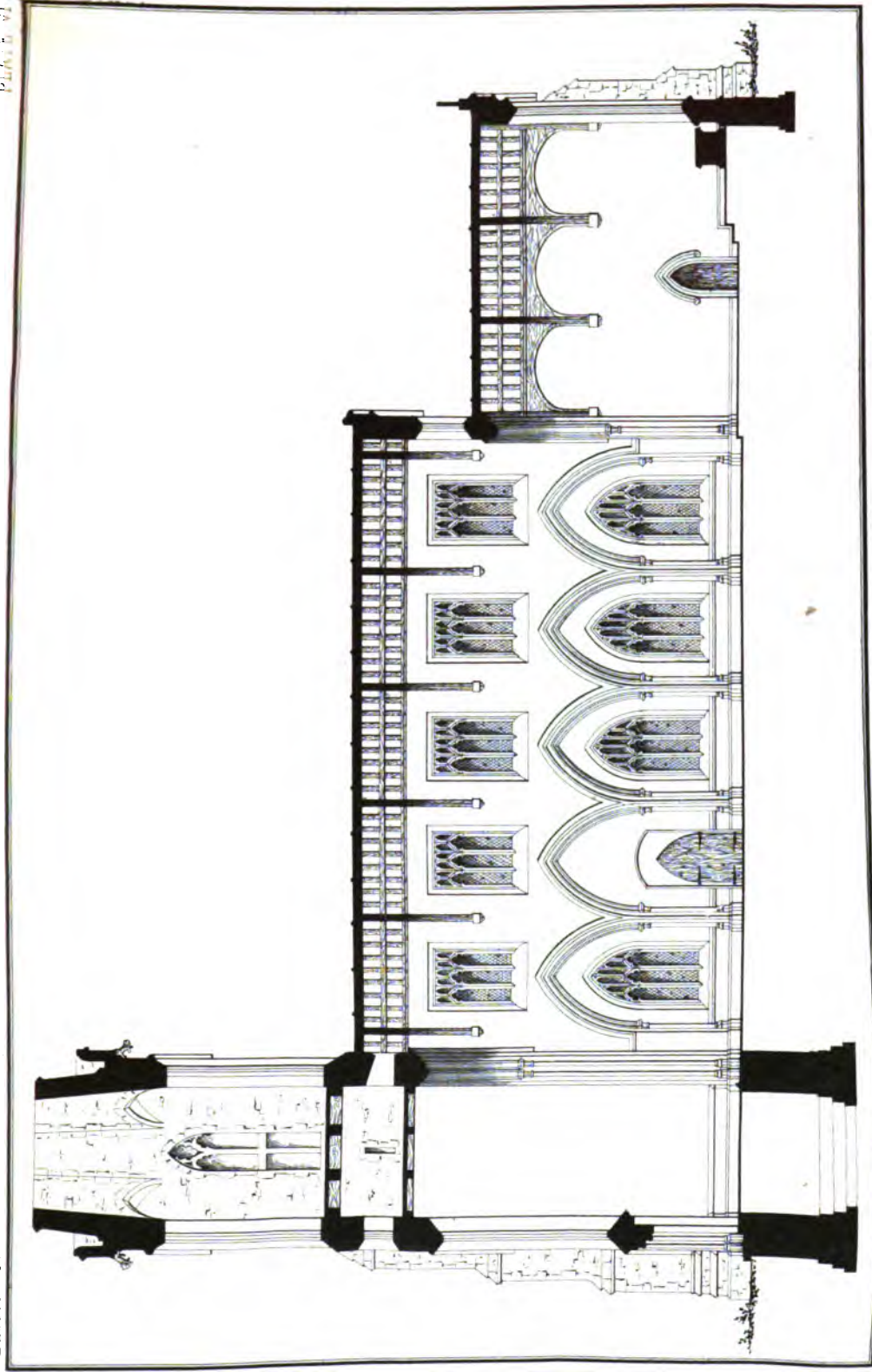
PLATE V



J. Coleman Hare, Arch^t. del.

Lith. of Garry & Co. N.Y.

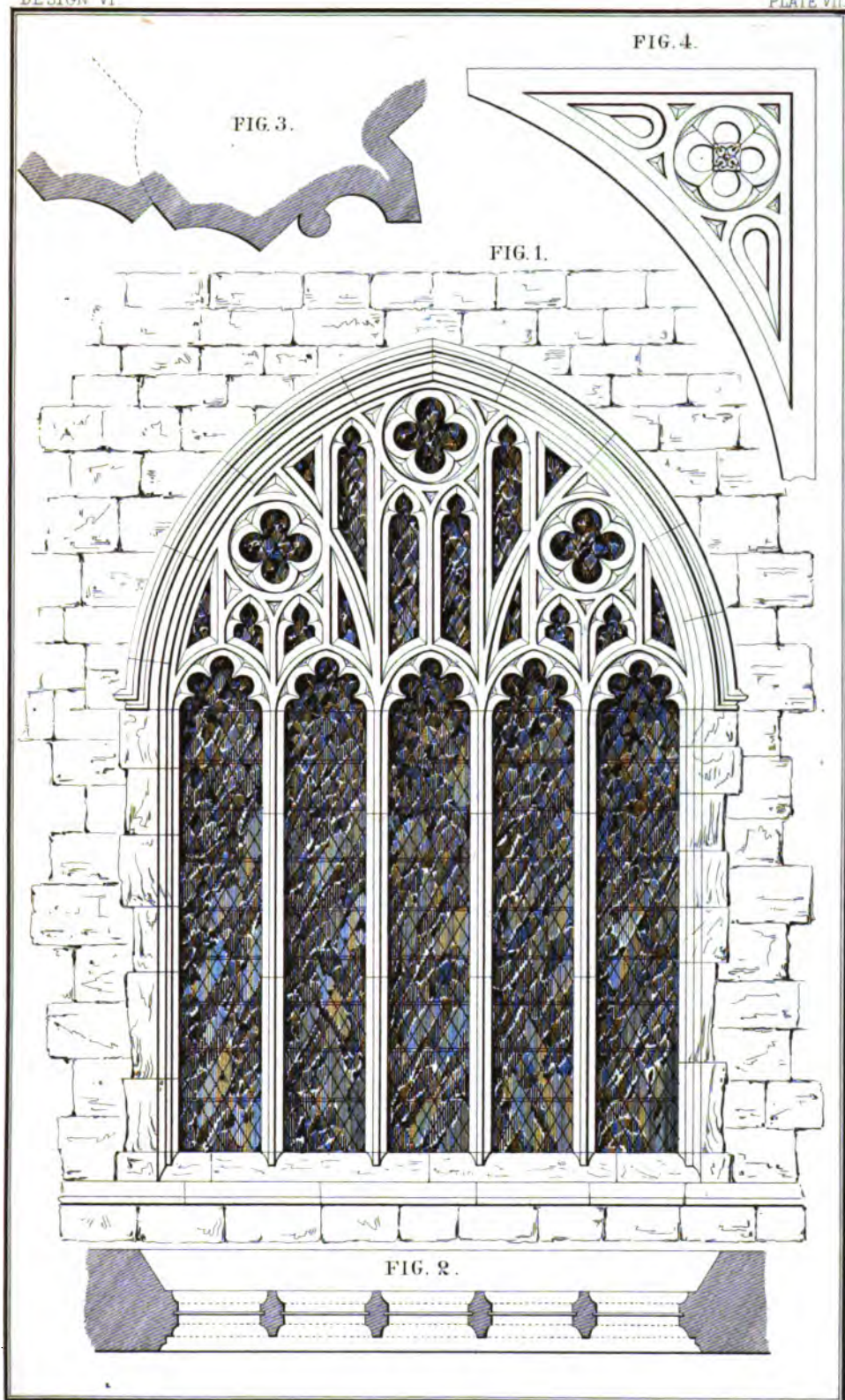
Transverse Section.



Perpendicular.

DESIGN VI

PLATE VII



J. Colman, Hare Archt. del.

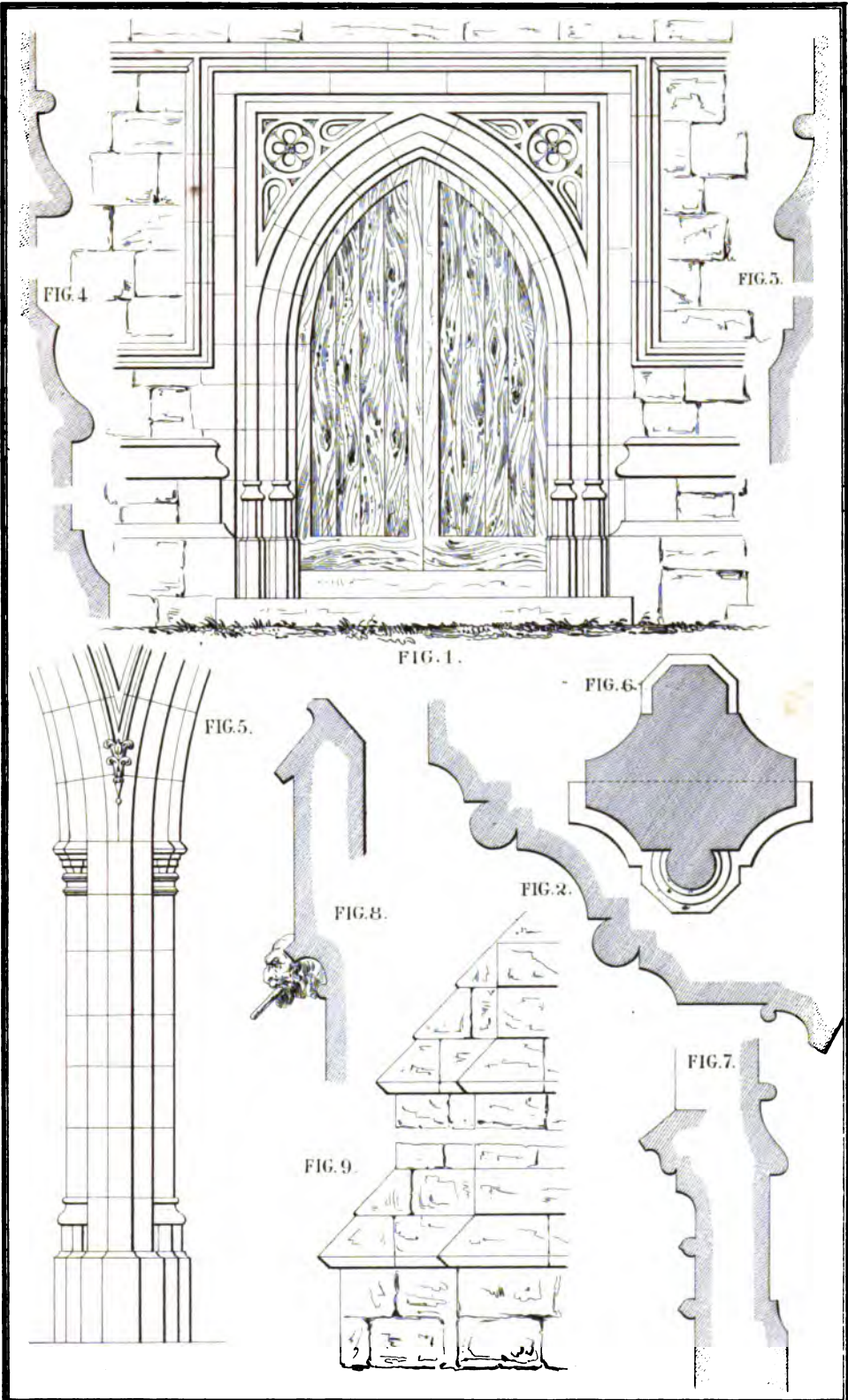
Litho of Saxby & Co. N.Y.

Analysis.

Perpendicular.

DESIGN VI.

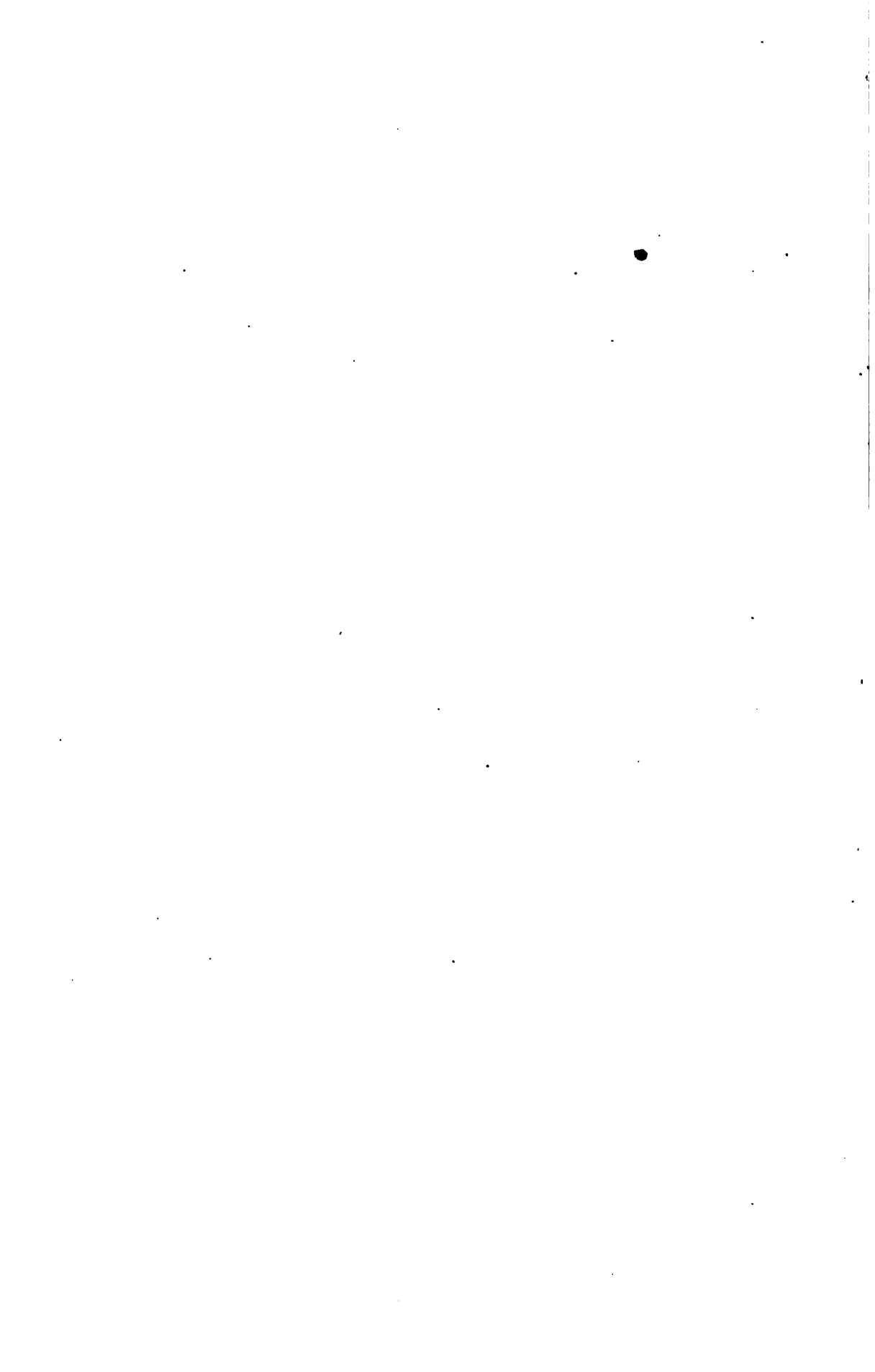
PLATE VIII.



J. Coleman Hart. Arch^t. del.

Lith. of Saxony & Co. New York.

Analysis.







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JAN 6 1950

